Abacus

A Journal of Accounting, Finance and Business Studies

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EDITORIAL

This issue of *Abacus* produces another accounting first. Following consideration of the suggestion by a member of the Pacioli Society, John Trowell, the Editorial Board of *Abacus* has decided to introduce to *Abacus* accounts of the Pacioli Society's mini-presentations. This section will appear at the end of either one or two issues per year, depending on copy demands. The Sydney University Pacioli is the only society of its type in Australasia. Over the last two years it has held three meetings per year on varied accounting topics with average attendees around fifty, many from the 'city'. This has been facilitated by the active and professional work of the current treasurer/secretary, Natalie Gallery, a staff member of the Discipline of Accounting and Business Law within the Faculty of Economics and Business. For forty years the society and *Abacus* have been important facets of the accounting discipline's interaction with both academe and the town. Accounting discipline staff have administered the society and the journal's operations and maintained a healthy membership of practitioners and academics.

The October 2000 *Festschrift* issue of *Abacus* contained an account of Ray Chambers' frustration in founding *Abacus* in the early 1960s (Wells, 2000). It noted Chambers' hope that: '*Abacus* might attract articles . . . exploratory, theoretical, empirical, analytical, historical, biographical, bibliographical and so on; articles which could be longer, if necessary, than most professional journals tolerate; and articles on legal, organizational, financial and other aspects of business besides accounting' (*AAUTA News Bulletin*, 1969). Those frustrations were evident also with Chambers' founding of the Pacioli Society.

In the decade prior to the founding of *Abacus*, Chambers had sought innovative ways of bringing town and gown together. As an associate professor in Accounting within the Department of Economics at the University of Sydney Chambers sought ways of mitigating the 'lack of formal opportunity for the exchange of

ideas with leaders of the business community'.[1] He drafted an invitation letter for the then acting professor of Economics, Herman (later Sir Herman) Black. The letter read: 'The immediate proposal is that a group of [academic and practitioner] persons should meet [at the university for dinner and then] discuss the question "What does the Accountancy Profession expect of the University?" '.[2] Several leading Sydney business persons and accountants attended, including Ronald (later Sir Ronald) Irish of R. A. Irish and Micelmore, Chartered Accountants, and Jim Greenwood of Greenwood and Challoner, Chartered Accountants. By trying to remedy the lack of mutual understanding of the views of economists, business persons and accountants, Chambers sought to influence and improve accounting thought and practice and thus improve business performance.

From the correspondence records in the Chambers Collection, it would appear that this relatively informal 1956 meeting is the genesis of the University of Sydney Pacioli Society, which held its first formal meeting on 5 June 1962. In a letter of invitation to that meeting Chambers observed: 'My feeling is that the best way we could come together is the traditional way of meeting for dinner first, breaking bread together, and then to sit down as a group to discuss one or two matters which are of common interest . . . [to] the academic profession and the accountancy profession'.

The following attended that first formal meeting: Messrs Brown, Chambers, Shaw and Standish of the Department of Accounting and, by invitation, B. M. Robertson, T. R. Russell, N. F. Stevens and J. B. Stubby. Dinner began at 6.30 p.m. and was followed at around 7.45 by Peter Standish's discussion of his paper, 'A True and Fair View of the Function of Auditing'. Chambers' account of the session is revealing of both the depth of analysis and the contemporary significance of the issues raised:

> Discussion began with a debate over the characteristics of organizations, particularly corporate business organizations; the issue being whether such organizations should be regarded inherently beneficent or as loose associations depending on the balancing of incentive. At a later point attention was focussed on the scope of the audit, the issue here being whether the auditors' competence should extend beyond the usual limits to judgement upon the wisdom of managerial decisions. In terms of participation the meeting was a vociferous success, discussion being terminated about 11 p.m., the visitors expressing their pleasure and the hope that they may come again.

After cancellation of the next meeting, scheduled for August 1962 (due to speaker ill-health), a second Pacioli Society meeting was held on 23 April 1963 to discuss Maurice Moonitz's *Basic Postulates of Accounting* (AICPA, 1961). To

[1] This extract and the following are taken from handwritten notes underpinning Black's letter of 16 April 1956. The notes are part of the Chambers Collection Archive. As noted in the Chambers *Festschrift* issue (October 2000), the Chambers Collection includes Chambers' correspondence files from 1947 to 1999—over 30,000 items. The Chambers Collection is part of the Fisher Library Archives at the University of Sydney. The archiving of the collection is ongoing.

[2] The perennial nature of this question is evident in Sydney University's Sesqui-Centenerary return to it in a public lecture on 14 October 2002.

ensure debate, Ray Chambers' mimeographed 'Some Observations on the Basic Postulates of Accounting' was distributed to attendees. The society was breathing, but its full potential would not be realized until several years later.

It was 1968 when a more formal, healthier, association emerged. There were revised rules, and a schedule of proposed meeting topics, including: 'Should there be an Australian Securities Commission?', 'Should accounting methods be uniform?', 'A critical look at company report awards', 'Education for accountants—a slow progress report' and 'Should accounting methods be uniform internationally?'. The society elected its first committee and earned formal recognition by the university.

From the lack of correspondence about meetings during 1963–7 it appears that the initial drive to develop the formal society had waned. This is supported by the following, which appeared in draft 1968 notes on the Pacioli Society's proposed function by the then honorary treasurer (and editor of *Abacus*, 1975–94), M. C. Wells: 'The present Society is an outgrowth of the less formal Society which met occasionally some years ago in the University to discuss prepared papers'. Consider the attached 1968 Rules of the Society which were ratified by the university:

1. The name of the Society shall be the Sydney University Pacioli Society.
2. The Society shall have as its object the promotion of the discussion of accounting and related matters and in pursuit of this object shall arrange for the giving of lectures, the holding of discussions and the arrangement of social functions.
3. The members of the Society shall be teachers in and graduates and undergraduates of the University and such other persons as the Committee from time to time admit to membership, but so that the number of such other persons shall not at the time of admission and as a result of such admission exceed fifty per cent of the membership.
4. The Committee may admit as associate members persons who share the interests of the Society but who are not members of the University; associate members shall not be counted for the purposes of the preceding rule.
5. The affairs of the Society shall be managed by a committee of five members, elected annually by the membership as defined in Rule 3. The Committee shall appoint from its members a president, a vice president and an honorary secretary-treasurer who shall hold office during the term of the Committee. At all times a majority of the Committee and of the executive shall be members of the University.
6. The annual subscription shall be $4 which shall include an annual subscription to the journal 'Abacus'; with the exception that the annual subscription of undergraduate members shall be $3.
7. The honorary secretary-treasurer shall keep such records as the Committee shall determine. The Committee shall appoint an honorary auditor for the term of the Committee.
8. There shall be an annual meeting of the Society, which shall be held not later than 31st March each year, for the purposes of receiving the report of the Committee and of electing officers for the ensuing year and of conducting any other business of which due notice has been given.
9. The Committee shall ensure that such requirements of the University are met as will secure and maintain its recognition as a University Society.
10. The rules of the Society shall be altered, subject to the requirements mentioned in Rule 9, by a majority vote of those present and voting at an annual meeting.

11. The Committee of the Society shall, in the first instance be:—

R. J. Chambers	President
J. R. Harrowell	Vice President
M. C. Wells	Hon. Secretary—Treasurer
J. A. Priddice	
R. S. Brown	

****

For the purpose of a requirement that a University Society shall have at least ten members, the following have agreed to be members:—

M. E. Aiken, B.Comm., M.Ec.
R. P. Brooker, L.L.B.
R. S. Brown, B.Ec.
R. J. Chambers, B.Ec.
J. R. Harrowell, F.C.A.
J. S. Pearson, B.Ec.
J. A. Priddice, M.Ec.
A. E. Shaw, B.Ec.
J. J. Staunton, B.Comm.
R. G. Walker, B.Comm. M.Ec.
M. C. Wells, M.Comm.

July 1968

Over the next two decades the Pacioli Society proved extremely successful in attracting numbers sometimes in excess of one hundred to its meetings. Annual reports of the society's activities prepared for the university as part of its obligations as an official university society reveal that between forty and eighty persons regularly attended the meetings, mainly held in the Merewether Building at the University of Sydney, with refreshments in the Merewether Staff Common Room. This continued the informality of those early gatherings. During the 1990s there was greater variability in attendance, and occasionally there were only one or two meetings in a year.

There has recently been renewed energy in the society's activities, which has prompted the decision to incorporate a 'Notes of the Pacioli Society' section in *Abacus*. It means that *Abacus* will present insights into contemporary issues confronting the business community prior to them being addressed in articles ready for publication. The current issue contains notes presentations from two of the society's meetings held in 2002, one on superannuation and the other on international accounting standards.

Ray Chambers is owed a great debt by the Pacioli Society for his foresight. Its operations, now in their fortieth year, are testimony to his perspicacity in founding the society and in pursuing its function with such tenacity. There is a strong prospect that it will continue to provide an opportunity to affect practice. Importantly, it provides a unique setting in which leaders of the business community in Australia and like-minded members of academe meet and share their thoughts, experiences and research outcomes. As has been said on many occasions, well done, Ray, and also well done to those honorary treasurers who have ensured

the society's continuity. Finally, thanks to the University of Sydney Accounting Foundation for its financial support.

Graeme Dean and Frank Clarke
University of Sydney
November 2002

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D. J. JOHNSTONE

Replacement Cost Asset Valuation and Regulation of Energy Infrastructure Tariffs

In Australia, access tariffs (rental charges) paid by third party users to the owners of energy transmission assets (e.g., gas pipelines) are determined by regulators on the basis of their depreciated optimized replacement cost (known as DORC). Reliance on the replacement cost, rather than actual cost, of existing assets inflates tariffs and incites the criticism that asset owners earn a return on investments of a scale never made. The economic rationale of the regulators' model is that it emulates the workings of a contestable market, by setting tariffs at a level just short of that required to motivate a new entrant (system duplication). Properly reconstructed, this model constitutes a dynamic and internally consistent theory of replacement cost valuation and depreciation. Its mathematical consequences, however, especially with regard to the valuation of sunk assets with long times to expiry, are shown to be practically and politically unpalatable. In particular, the implied tariff levels for such assets are very close to those that would apply to new infrastructure assets built today at today's prices. Regulators unwilling to accept this implication of a new-entrant-exclusion pricing logic are left with no alternative framework for DORC.

Key words: Asset valuations; Infrastructure; Replacement costs; Tariffs.

INTRODUCTION

The owners in Australia of energy transmission infrastructure assets (gas pipelines and electricity grids) are natural monopolists safe from any practical economic risk of private sector investors or governments replicating the main trunks of their transmission networks. Following the principles set down in the *Report on National Competition Policy* (Commonwealth of Australia, 1993), federal and state governments have established 'access regimes' to enable other companies, including downstream users and competitors in energy supply markets, to access (i.e., rent) part of the capacity of these otherwise monopolized assets. Arrangements between asset owners and asset users are on an artificially commercial

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DAVID JOHNSTONE is a Professor in the Department of Accounting and Finance, University of Wollongong. This research has been completed with the financial support of BHP Petroleum Pty Ltd and the Australian Research Council (Small Grant Scheme). Discussions with Eric Groom (IPART), Murray Wells (Emeritus Professor, University of Sydney), John Trowell (University of Wollongong), Ken Peasnell (University of Lancaster) and Graeme Dean (University of Sydney) are acknowledged with appreciation.

basis, intended to bring about competition in energy supply markets and reduce downstream energy costs:

> An access regime is a set of procedures for allowing a third party to use services provided by significant infrastructure facilities owned or operated by another party on fair terms ... Common types of infrastructure include electricity transmission lines, gas pipelines, telecommunications networks and rail track. For example, Energy Australia can sell electricity to a customer located in another distribution area, owned by, say, Integral Energy ... The common benefits of competition are lower prices, choice of service provider, more innovative and better quality services and a more efficient utilization of a network. Competition will improve productive efficiency as service providers minimize their operating costs to provide services at the lowest possible price. In turn this will increase the competitiveness of the downstream goods and services markets that use the infrastructure. (IPART, 1999a, p. 5)

In exchange for access to their networks, infrastructure owners ('service providers') are paid transmission tariffs in amounts determined by independent regulatory agencies, including primarily the ACCC (Australian Competition and Consumer Commission), ORG (Office of the Regulator-General, Victoria) and IPART (Independent Pricing and Regulatory Tribunal of New South Wales). Federal government industry policy on tariff determination written into the National Electricity and National Gas Codes, and reaffirmed by the ACCC (1998a, pp. 6–15; 1999a, pp. viii–xiv), requires that tariff settings be 'cost-reflective' and generally consistent with prices in efficient and competitive markets (Productivity Commission 2001, p. 198).

These overriding yet imprecisely articulated criteria leave regulators with wide discretion, but also with the difficult task of contriving defensible market-like outcomes where there are no actual markets. The fundamental problem is one of logical circularity—tariffs cannot be fixed at levels consistent and fair in relation to the market value of the services (energy load transmission) and service infrastructures (pipelines, etc.) when in fact those market values are only determined once tariff levels are set. There is no observable market for energy transmission services independent of the regulators' decisions (Bonbright *et al.*, 1988, pp. 216–17; Whittington, 1998b, p. 30; IPART, 1998, p. 18; ACCC, 1999a, p. 39).[1]

Undaunted by this inherent circularity, regulators have developed and relied almost exclusively on a model claimed to emulate market determinations, and described as the 'building block approach' (ACCC, 1998a, p. 6; 1999a, p. x; Productivity Commission, 2001, p. 209; IPART, 1999b, p. 4; 1999d, Vol. 1, p. 138). Put simply, this model categorizes the period costs of owning (financing) and operating the necessary transmission infrastructure assets and totals these to give a maximum or upper limit (a 'price cap') on allowable period tariff revenue. In general, total period costs are taken as the sum of *operating costs* and *capital costs*, where capital costs are defined as (a) depreciation (i.e., loss of asset value) plus (b)

[1] Walker *et al.* (2000a) following Clarke (1998) note that this circularity problem has long been recognized within rate-of-return price setting and regulatory regimes; several references are provided, beginning with Bonbright (1937).

opportunity cost—that is, foregone return—incurred when capital is committed to physical (infrastructure) assets.

Expressed as a formula, the maximum allowable tariff revenue (MAR) in period t is

$$operating\ expense_t + depreciation_t + opportunity\ cost_t \quad (1)$$

where $depreciation_t$ is the decline in asset value $V_{t-1} - V_t$ over period t (however measured) and $opportunity\ cost_t$ is the dollar return on capital that could have been earned had a cash amount equal to the period opening asset value V_{t-1} been invested elsewhere for the duration of the period (ACCC, 1999a, pp. x–xiv). The intuitive justification for this formula is that asset owners are reimbursed for their (efficient) periodic operating costs and for any consequential loss of capital (depreciation), and rewarded at a specified rate of return, determined by the regulator, for their commitment of capital, as would be expected of a rational and competitive capital market. The capital intensity of energy transmission businesses causes capital costs greatly in excess of operating costs (ORG, 1998a, p. 9; Parry, 2000, p. 140). When assessed on a replacement cost basis, capital costs are typically 70–80 per cent of total costs (Davis, 1999a, p. 5; Zauner, 2000, p. 1).

The regulators' tariff formula averts or at least minimizes the circularity problem by defining entity asset value in an 'accounting' rather than 'economics' way as a sum of book values, or in other words, by applying a 'balance sheet' approach to the valuation problem. Individual asset book values are measured on a basis independent of the assets' use in regulated energy transmission. Possible valuation bases are current market realizable (scrap) value, 'historical' or actual cost, current replacement cost, and deprival value. Of these, the last has been considered favourably by regulators, but rejected because of its inherent reference to future cash flows (tariffs) and hence the circularity problem (ACCC, 1999a, pp. x–xi).[2] Each of the other three valuation bases applies without obvious circularity—specifically, the amount that an asset (such as, say, a pump or a pipe) cost when it was acquired, or would cost to replace, or could be removed and sold for, does not depend directly on how it is being used, or moreover on what tariffs it is helping to generate.[3]

Any of these three possible valuation bases might have been adopted within the 'building block approach'. However, from the start and with little apparent reservation, there has been consensus between Australian regulators, particularly the

[2] Walker *et al.* (2000b, p. 132) hold that in Australia '[t]he deprival value accounting variant of replacement cost has become the dominant public sector accounting method'. A COAG agreement of August 1994 instated deprival value as the preferred valuation rule for network assets (IPART, 1998, p. 35; ACCC, 1998a, p. 8). The institutional history of this concept, particularly in the Australian public sector, is documented in Clarke (1998) and Walker *et al.* (2000a). Whittington (1998b) details similar developments in the United Kingdom.

[3] Some second order circularity will surely remain. In imperfect markets, quotes for the replacement of infrastructure assets, especially highly specialized items, will tend to be higher when these can be employed to produce higher tariff revenues. Similarly, the scrap value of such assets will be greater if there is a secondary market for them driven by their potential for use elsewhere in tariff generation.

ACCC and ORG, that the single or most appropriate valuation basis for tariff setting is current replacement cost, or more specifically, *depreciated optimized replacement cost*, commonly abbreviated to DORC. By definition, the DORC of an asset is the written-down replacement cost of its optimal or most efficient replacement (in an engineering or cost efficiency sense):

> Optimized replacement cost is a variant of the replacement cost valuation methodology which measures the cost of the most efficient method of providing the services of the current asset. (ACCC, 1998a, p. 9)

> DORC is the replacement cost of an 'optimized' system, less accumulated depreciation. It allows for the depreciated state of the asset and also incorporates engineering optimization of the utility's asset. An optimized system is a re-configured system designed to serve the current load plus expected growth over a specified period using modern technology. This method excludes any unused or under utilized assets beyond the specified planning horizon, and allows for potential cost savings which may have resulted from technological improvement.[4] (IPART, 1999d, Vol. 1, p. 52)

The Australian regulators' acceptance of DORC has significant economic and political consequences, and has attracted both support and annoyance from within the industries and companies affected. The main issue, immediately obvious to academics who have followed the waxing and waning over three decades of current cost accounting (CCA) proposals in the private sector, is that DORC valuations tend to inflate asset book values (relative to either historical cost or market realizable value) and hence to increase any related measure of the asset owners' capital costs, thereby raising the regulated tariff stream flowing from energy users and wholesalers to transmission asset owners. The ready appeal of DORC-based tariff streams to incoming (and incumbent) asset owners has assisted governments, particularly the state government in Victoria, to maximize the proceeds from infrastructure privatizations. Moreover, the direct connection between prices gained from the sale of infrastructure assets and the basis on which these are valued on paper (on the regulatory balance sheet) has undoubtedly brought much political pressure on regulators to adopt and endorse DORC, and must in some part explain their commitment to its application.[5]

The economic, political and social consequences of regulators' near universal reliance on DORC asset valuations may be very significant. At worst, there is the potential to hamstring the development of Australian industry by inflating the costs of energy to downstream producers, thus unnecessarily rationing industry's use of existing ('sunk') energy transmission networks and known energy reserves. On the other hand, transmission asset owners have argued that an asset valuation

[4] Zauner (2000, p. 4) notes that in the experience of his engineering valuation firm, the 'O' in DORC is relatively ineffective: 'The optimization approach is necessarily subjective and receives much debate even though it typically only results in a write-down of the order of 5–10% of the un-optimized value'.

[5] IPART (1999, p. 51) implicitly acknowledged direct interference by the N.S.W. State government in its recognition of DORC for electricity distribution assets in N.S.W. See also, for example, the Victorian State Treasury *Energy Projects Division* submissions, emphasizing the validity and relevance of DORC (ACCC, 1999a, p. 41), to the ORG/ACCC joint enquiry on the Victorian Gas Distribution Access Arrangements (Final Decision 6 October 1998; ORG, 1998b, and ACCC, 1998b).

base which leads to lower tariffs will jeopardize their profitability and hence stifle growth and investment in additional and spin-off infrastructure.

Given the importance of transmission tariff settings, both to energy dependent industries and to infrastructure investors, it is essential that there be proper review of the Australian regulators' adoption and advocacy of DORC asset valuations. This article seeks to contribute towards such a review. In particular, it reconstructs the regulators' conceptual framework, including particularly the role of DORC in the tariff formula, and questions the analytical arguments that have been put for DORC and expressly endorsed by regulators in their published proceedings. A secondary objective of the paper is to bring to the notice of regulators and others involved in the tariff setting debate relevant aspects of the established literature on replacement cost valuation in accounting, emphasizing particularly the problems caused by their innate subjectivity.

The most contentious and consequential regulatory asset valuation decisions entail 'sunk' assets. Assets yet to be built (new investments) will be added to the regulatory asset base (RAB) at the same dollar figure irrespective of whether the asset valuation basis is depreciated actual cost, known as DAC, or optimized replacement cost (DORC). Although the subsequent treatment of those assets' values may not be the same (see discussion below), the likely tariff consequences of the regulator's choice between DAC, DORC and other valuation rules are relatively less significant or at least not so immediate for assets yet to be constructed as for those already existing. Because of the relative importance of the initial regulatory asset base (RAB_0) and the likely precedent attached to its determination, this article is primarily concerned with the valuation of existing assets.

THE REGULATORS' TARIFF EQUATION

The building block approach equation (1) for MAR can be written as

$$operating\ expense_t + (V_{t-1} - V_t) + V_{t-1}r \qquad (2)$$

where r is the periodic rate of return on capital granted to the asset owner by the regulator. In principle, this percentage return is meant to equal the asset owner's *weighted average cost of capital* (WACC), or in other words the risk-related rate of return demanded of such an investment by an efficient capital market.

The regulators' discretionary determination of WACC (set at a real rate of return of 7.75 per cent in the ACCC/ORG 1998 determinations) has been as controversial, and subject to the same political lobbying as their reliance on DORC. Again there is an issue of logical circularity since the market required risk-adjusted return on investment in energy transmission assets hinges on the regulators' choice of, and commitment to, a given figure for WACC, and on the (systematic) risk of changes to regulatory arrangements in the future (known as 'regulatory risk'). There are, however, more relevant external benchmarks for WACC than for RAB, such as, for example, typical market rates of return on subjectively comparable assets, and the rates of return earned by equivalent entities in other countries. Nonetheless, there is no obviously correct or fair answer for WACC and the

regulator can only adjudicate between the various affected parties' disparate and obviously self-interested views. References on the recent Australian regulatory debate over WACC include Officer (1998), Davis (1999a; 1999b), Johnstone (1999c) and IPART (1999d, Vol. 1, pp. 105–23).

Replacing the corresponding terms in (2) with the acronyms RAB and WACC, the regulator's tariff equation is written in its now familiar form as

$$operating\ expense_t + (RAB_{t-1} - RAB_t) + RAB_{t-1}WACC. \tag{3}$$

where WACC is the regulated rate of return to asset owners, and theoretically their weighted average cost of capital.

THEORETICAL FOUNDATIONS OF THE TARIFF EQUATION

The tariff formula can be rationalized in terms of present value (PV), using the formal reconciliation between cash and 'accruals' measures of capital costs clarified by Peasnell (1981, pp. 53–4; 1982, p. 365) and Edwards *et al.* (1987, pp. 12–31), and first arising in Hotelling (1925) and Preinreich (1938).[6] Specifically, after being reimbursed for their periodic operating expenditures (e.g., wages, etc.) asset owners receive net cash (tariff) flows in period t equal to

$$(RAB_{t-1} - RAB_t) + RAB_{t-1}WACC.$$

Discounting this cash flow sequence at rate r = WACC, the discounted present value (PV) of the tariff stream to asset owners is

$$PV = \sum_{t=1}^{T} \frac{(RAB_{t-1} - RAB_t) + RAB_{t-1}WACC}{(1 + WACC)^t}$$

where $t = T$ represents the time at which the regulatory asset base is fully depreciated ($RAB_T = 0$).

Simplifying this equation as follows

$$\begin{aligned} PV &= \frac{(RAB_0 - RAB_1) + RAB_0WACC}{(1 + WACC)^1} + \frac{(RAB_1 - RAB_2) + RAB_1WACC}{(1 + WACC)^2} + \ldots \\ &\quad \ldots + \frac{(RAB_{T-1} - RAB_T) + RAB_{T-1}WACC}{(1 + WACC)^T} \\ &= \frac{RAB_0(1 + WACC)}{(1 + WACC)} + \frac{RAB_1(1 + WACC) - RAB_1(1 + WACC)}{(1 + WACC)^2} + \ldots \\ &\quad \ldots + \frac{RAB_{T-1}(1 + WACC) - RAB_{T-1}(1 + WACC)}{(1 + WACC)^T} - \frac{RAB_T}{(1 + WACC)^T} \\ &= RAB_0 \end{aligned} \tag{4}$$

[6] This analytical connection between cash flows (finance) and 'accrual' measures of costs (accounting) underlies the theory of clean surplus accounting. Brief and Peasnell (1996) discuss the history and consequences of this theory, and provide a collection of important related papers.

reveals that the PV of the regulated tariff stream, calculated at discount rate equal to the regulated WACC, is equal to the amount of the initial ($t = 0$) regulatory asset base, RAB_0. This result makes obvious the asset owner's economic imperative for negotiating the highest possible initial asset book value, RAB_0. If the regulated WACC is in fact the true cost of capital, then the PV of the ensuing tariff stream equals exactly the RAB_0 granted by the regulator.

Three further results follow immediately:

1. Any asset revaluation agreed to by the regulator amounts to an NPV windfall to asset owners equal to the amount of the (upward) revaluation. To prevent this 'free lunch' the regulator must either prohibit asset revaluations or treat them explicitly as income in the tariff equation, thus reducing tariffs (cash flow) in the period of the revaluation by the amount of that revaluation.[7] The expanded tariff equation satisfying this requirement is

$$\textit{operating expense}_t + \textit{depreciation}_t + \textit{opportunity cost}_t - \textit{revaluations}_t. \quad (5)$$

2. Any new investment in infrastructure by asset owners offers NPV equal to the difference between the corresponding increase in the RAB and the actual cash amount invested. To fix this incremental NPV equal to zero, as is characteristic of an efficient capital market, expenditure on new assets must be brought onto the regulatory balance sheet at actual cost (which is, presumably, also the then optimized replacement cost of the new asset).
3. For given total depreciation ($RAB_0 - RAB_T$), PV is constant regardless of the time pattern of period depreciation charges. It makes no difference over what interval $0 \leq t \leq T$ assets are written down, or how aggregate depreciation expense is distributed within this interval. More specifically, given $RAB_T = 0$, PV equals RAB_0 whatever the depreciation scheme. This point is of sufficient importance to bring about repeated explanation over many years: for example, Preinreich (1938), Edwards and Bell (1961, pp. 68–9), Schmalensee (1989), King (1997, p. 6), Newbery (1997, p. 3), Whittington (1998a, pp. 97, 100) and Davis (1999a, pp. 7–8, 1999b, p. 2).

The financial effect of the regulators' tariff equation can be described intuitively as follows. In essence, the regulator creates a 'bank account' of initial amount RAB_0 in the name of asset owners. Against this account, owners are paid periodic interest at effective interest rate WACC (granted by the regulator). Interest is calculated on the period opening RAB value. Each period the RAB or account balance falls by the amount of depreciation in that period. This sum is paid to the asset owner, and equates to a period end cash withdrawal from the asset owner's interest bearing account. In aggregate, the period tariff includes both a sum of interest ('return on capital') and a withdrawal ('return of capital'). When at $t = T$ all remnant capital is withdrawn ($RAB_T = 0$), cash flows (tariffs) cease. In practice

[7] A closely related argument in an accounting context by Peasnell and Archer (1984) requires that, to avoid double counting, holding gains on debt be credited to the income account rather than directly to equity.

RAB will likely never approach zero, because the asset owner will over time make further investments in its infrastructure assets. The amounts spent on new assets will have the same effect as cash deposits into the owners 'bank' (RAB) account. Each further deposit (asset acquisition) will earn interest until fully withdrawn through asset write-downs (depreciation). An important aspect of this analogy is that all interest is paid out in cash—none accumulates in RAB. The only way to add to RAB is to invest in new assets.

THE METHOD OF DEPRECIATION

The method by which regulators depreciate ORC to arrive at DORC has been subject to much discussion (e.g., ACCC, 1999a, pp. 57–9; IPART, 1998, pp. 40–1; 1999a, pp. 16–17; 1999c, pp. 46–7; 1999d, Vol. 1, pp. 91–104; ORG, 1999, pp. 15–16) and like other contentious 'building block' inputs, has been regarded as a matter for negotiation. The two main issues are: (a) to what extent are existing assets already depreciated, or put another way, how is the initial ($t = 0$) asset value $RAB_0 = DORC_0$ to be found from ORC_0, and (b) by what algorithm is $DORC_0$ to be written down from that time onwards? The regulators' answers to these questions, thus far, can be summarized as follows:

1. $DORC_0$ is obtained as a linear (with respect to asset age) proportion of ORC_0 by the formula

$$DORC_0 = ORC_0 \frac{l_e - a}{l},$$

where a is the age of the existing asset, l_e is the estimated total life of the existing asset and l is the estimated life of either the existing asset or its modern equivalent (ACCC, 1999a, pp. 46–7; Zauner, 2000, p. 6). The ambiguity over whether l should refer to the asset already in place or its new equivalent is typical of replacement cost valuation generally and related to the more general issue of what constitutes asset 'replacement' (see below). Not all of the Australian regulators' published decisions state the ORC value from which the initial value of DORC is found, but where this information is provided $DORC_0$ is typically in the region of 50–80 per cent of ORC_0 (e.g., IPART, 2000, pp. 273–4). Large percentages are to be expected given the generally very long lives of the assets in question, or their modern equivalents.
2. The regulators' standard depreciation algorithm is (real) straight line (ACCC, 1998b, pp. 44–5; 1999a, p. 47; ORG, 1998b, pp. 94–7). Where there is no inflation, nominal DORC reduces linearly over time. With inflation, it is the real rather than nominal value of DORC that reduces linearly. This algorithm works as follows. Take year 3 say of an asset being depreciated straight-line over $T = 5$ years (20 per cent per year). At $t = 3$, only 40 per cent of the asset remains. Its nominal ORC at that time is its initial ($t = 0$) value of \$100 indexed up to \$100 $(1.05)^3$ = \$115.76 to allow for 5 per cent annual inflation. Hence DORC at this point is 40% (\$115.76) = \$46.31, in nominal time 3 dollars, or

$\$46.31/(1.05)^3 = \$40$ in real (time 0) dollars.[8] Full example calculations are provided and explained below.

TABLE 1

BUILDING BLOCK MODEL EXAMPLE CALCULATIONS

Time	0	1	2	3	4	5
Zero inflation						
ORC	100.00	100.00	100.00	100.00	100.00	100.00
DORC	100.00	80.00	60.00	40.00	20.00	0.00
Depreciation		20.00	20.00	20.00	20.00	20.00
Return on capital (10%)		10.00	8.00	6.00	4.00	2.00
Total cash flow		30.00	28.00	26.00	24.00	22.00
Present value ($r = 10\%$)		27.27	23.14	19.53	16.39	13.66
Total present value	100.00					
5% inflation – all values nominal						
ORC	100.00	105.00	110.25	115.76	121.55	127.63
DORC		84.00	66.15	46.31	24.31	0.00
Depreciation		16.00	17.85	19.85	21.99	24.31
Return on capital (15.5%)		15.50	13.02	10.25	7.18	3.77
Total cash flow		31.50	30.87	30.10	29.17	28.08
Present value ($r = 15.5\%$)		27.27	23.14	19.53	16.39	13.66
Total present value	100.00					
Real cash flow (time 0 dollars)		30.00	28.00	26.00	24.00	22.00

Example Calculations

The workings of the building block tariff model are illustrated in the spreadsheet calculations shown in Table 1, adapted from Davis (2000, p. 12). Calculations are provided for the cases of zero inflation and 5 per cent inflation. For the purpose of the illustration, the opening RAB value is $RAB_0 = \$100$. Assets are assumed to have a remaining life of $T = 5$ years. The regulated WACC is taken as 10 per cent real. This implies a nominal WACC of $1.10 \times 1.05 - 1 = 0.155 = 15.5\%$ when the inflation rate is given as 5 per cent. The assumed depreciation scheme is the 'real linear' method endorsed by the ACCC and to date applied by all Australian regulators (see references above). Davis (2000) refers to this as 'competition depreciation', a term used by the ACCC (1999a, pp. 28, 47) to describe depreciation schemes that imply a constant or near constant real tariff stream. Tariffs are then largely unaffected by the age of the service providers' assets. This tariff

[8] In current cost accounting (CCA) where asset values are expressed in nominal terms, the cumulative adjustment required to achieve a given pattern of depreciation (e.g., straight line) in real rather than nominal terms—to ensure that accumulated depreciation keeps up with inflation—is known as the 'depreciation backlog' (Whittington, 1983, pp. 164–6).

characteristic is thought to mirror product prices in actual competitive markets for capital intensive products (e.g., airline tickets [ACCC, 1999a, p. 47]).

The real linear depreciation scheme employed by the ACCC and other Australian regulators can be described mathematically as follows. Nominal written down asset value at time t is

$$DORC_t = ORC_0(1+i)^t\left\{\frac{T-t}{T}\right\}$$

where i is the inflation rate, T is asset expiry date and ORC_0 is the nominal opening asset value.

Nominal depreciation expense in period t is then

$$DORC_{t-1} - DORC_t = ORC_0(1+i)^{t-1}\left\{\frac{T-(t-1)}{T}\right\} - ORC_0(1+i)^t\left\{\frac{T-t}{T}\right\}$$

$$= ORC_0(1+i)^{t-1}\left\{\frac{1-(T-t)i}{T}\right\}$$

$$= 100(1.05)^2\left\{\frac{1-(5-3).05}{5}\right\} = \$19.85 \quad \text{for } t=3,$$

and the sum of depreciation expenses over all T periods is

$$ORC_0\sum_{t=1}^{T}(1+i)^{t-1}\left\{\frac{1-(T-t)i}{T}\right\} = ORC_0.$$

The economic incentives of the asset owner in relation to its chosen depreciation scheme are straightforward. Depreciation is a return of capital out of the pool (RAB) earning a regulated ('guaranteed') rate of return (WACC). If the regulated WACC is acceptable—or more than acceptable—then the asset owner will want to depreciate its assets only minimally or not at all. The reason for this is that once a depreciation expense is recognized, the owner is 'paid out' that amount and hence does not earn a regulated WACC return on it any more. Note that neither the NPV of the investment nor its IRR (here equal to the regulated WACC) is affected, only its duration. All else being equal, an investment returning a high IRR (regulated WACC) will be extended as far as possible. This is achieved by minimizing and thus effectively postponing ('back-loading') depreciation write-downs. Constraining the service provider's economic desire for minimal depreciation is its obligation to pay interest and dividends. Asset write-downs provide cash flow and in this way are advantageous. Ultimately the asset owner will have to compromise between its competing desires of maximizing the asset pool earning the regulated WACC and at the same time paying a stream of dividends to shareholders of sufficient amount and consistency.

PRIVATE SECTOR REJECTION OF RC VALUATION AS TOO SUBJECTIVE

DORC and its close relatives (DRC and 'deprival value') have a long and chequered history in the accounting literature. During the era of high inflation in the 1970s and 1980s there was a strong push in the U.K., Australia and New Zealand for shifting the basis of external financial reporting in the private sector away from the traditional historical cost (DAC) framework onto a replacement cost (RC) footing (Clarke, 1982; Tweedie and Whittington, 1984). Ultimately, after extensive scrutiny, the RC proposal was defeated from both within and outside the accounting profession (Pong and Whittington, 1996; Tweedie and Whittington, 1997). This was for a multitude of reasons, of which perhaps the most telling was the inherent practical difficulty of measuring the RC of assets in any way 'objective' or independently verifiable,[9] and hence the latitude for management interference in the asset values and related cost measures: 'There is no way in which the resultant income and capital measures can be treated as being independent of management' (Peasnell, 1984, p. 192).

Because of their subjectivity, Whittington, a stalwart of the RC debate and an in-principle supporter of RC for financial reporting purposes (although not tariff regulation), effectively dismisses the possibility of RC methods becoming standard financial accounting practice:

> The accounting standard perspective suggests that CCA [replacement cost accounting] is, at best, a remote prospect as standard accounting practice in the UK. Systematization of the valuation base, to include more current values, possibly on a VTB [deprival value] basis, has been proposed rather tentatively. However, the subjectivity of such valuations, especially for specific operating assets, such as plant and machinery, is likely to rule them out as standard practice for some time. (Whittington, 1994, pp. 88–101)

> [T]he U.K. government decided (in 1982, and contrary to earlier indications) that CCA was too unreliable to be used as a basis for corporate tax. (Whittington, 1998b, p. 28)

DORC is Unauditable

Auditing in the sense of independent corroboration (Wolnizer, 1987) is impossible with DORC. No two firms of valuers working independently can be expected to come up with equal or even nearly equal DORC valuations. The problem is that DORC valuations embody multiple subjective and at worst completely arbitrary choices, and can only be verified when these are specified and taken as given:[10]

[9] There were also problems with finding any workable concept of financial or operating 'capital'. These are essentially irrelevant here because the tariff equation has its theoretical justification not in an accounting concept of 'capital maintenance' but in its reconciliation with the NPV (economic value) of the tariff stream (Whittington, 1998a, p. 96).

[10] Walker *et al.* (2000a) have recently shown up this deficiency in the financial reports of several water and electricity utilities in N.S.W. IPART (2000, pp. 75–6) recognizes 'the considerable range in estimates of the DORC value of AGLGN's assets', noting one expert valuation of ' "new entrant" DORC of $1,900m–$3,300m'.

> It is very easy for experts to disagree on DORC valuation, since it requires the exercise of a large amount of discretion, and of engineering judgment in particular. It is not unusual to find that even a minor change in assumptions can result in a DORC valuation differing from an original assessment by 30% or more, and there are already examples of this range of variation in the various regulatory decisions in both electricity and gas in Australia . . . In the case of the Victorian transmission network, the author is aware of studies which showed that the entire 500kV network in that State could be replaced with a 330kV network involving the same number of tower lines and performing the same functions—but perhaps involving 60–70% of the cost. This degree of optimization would have substantially reduced the DORC valuation of the transmission network assets, but was not undertaken by the Government (Booth, 2000, pp. 8–9).

The unavoidable discretionary choices that underlie all DORC valuation occur in response to the following problems:

1. The *asset definition* problem: The cost of replacing an asset depends on how that asset is defined. Is it the physical item in question (e.g., a pump) or its future service potential (the latter, following Fisher, 1906, and Canning, 1929, is the usual accounting definition of an asset). Since the measurement required is ORC rather than RC, it is implicitly the latter. But what specifically constitutes 'service potential', and for how long and to whom, and by what measure? This raises the issue of expected useful life. Just how much service potential does an existing asset have left? Is it 25 per cent or 55 per cent depreciated in this regard? Will it be bypassed and will the energy (e.g., gas) available at its source remain economically extractable? There are no objective (uniquely sensible) criteria on which to answer any of these questions. The engineering valuer has no alternative but to rely on discretionary 'professional judgment' and therefore retains the ability to arbitrarily affect the bottom line.
2. The *optimization problem*: By what engineering criteria is an asset or arbitrary grouping of assets optimized? How far is the engineer allowed to go in hypothetically re-designing the asset base? Is it only a matter of fine-tuning or should the engineer start with a blank canvass (e.g., green-fields Melbourne)?[11] What customer base (throughput) is relevant: is it the current situation or a projection of demand in five or twenty-five years time? Does the notion of asset optimization relate only to cost or more to a set of engineering parameters? If both, which should be given more emphasis? Moreover, if the notion of an engineering optimum depends on cost, is there a different optimum for every different cost level?
3. The *quote variance problem*: If the valuer relies on just one estimate of the RC of a particular asset (however defined for the purpose of getting a quote) then the valuation is subject to high sampling error (variance). If a larger sample of quotes is drawn, which of the widely differing valuations should be given the most weight?

[11] For example, Ergas and Smart (2000, p. 14) in discussing the DORC value of Sydney airport find that the efficient (minimum) replacement cost 'is likely to be represented by a green field airport on relatively cheap land'.

4. The *aggregation* or *additivity* problem: In general, the RC of a conjunction of assets $\{a, b, c, d, e\}$ is not equal to the sum of the RCs of the individual assets $\{a\}$, $\{b\}$, $\{c\}$, $\{d\}$, $\{e\}$. Nor is it equal to the sum of the replacement costs of any mutually exclusive and jointly exhaustive subsets of those assets, such as, for example, $\{a, b, c\} \cap \{d, e\}$. Moreover, by re-partitioning the asset set into another of its possible groupings, such as, say, $\{a, b\} \cap \{c, d, e\}$ or $\{a\} \cap \{b, c, d\} \cap \{e\}$, the aggregate replacement cost can be made arbitrarily higher or lower. To escape this arbitrariness, practitioners suggest that the appropriate asset bundling is that which minimizes aggregate RC, a rule consistent with the notion of 'optimized' RC (ACCC, 1999a, p. 44). The problem with this *ad hoc* criterion is that it generally leads to a very high level of aggregation. Natural economies of scale mean that hypothetical asset replacement cost is minimized, in the limit, when infrastructure is replaced as a 'single' asset. But at such high levels of aggregation, RC quotes are bound to exhibit extreme variance from one estimate to another, based on different guesses about the potential economies of such large scale construction. The 'least cost' rule is therefore generally ineffective in removing subjectivity and discretionary latitude from the bottom line. By culminating in the entirety of the firm's assets being defined as one, it effectively defeats the purpose of a 'balance sheet' (sum of assets) approach to asset valuation.

Bureaucratic Suppression of Criticism

During the private sector RC debate of the 1970s and 1980s, DORC style asset valuations were disparaged and ultimately rejected for their incorrigible subjectivity and inherent susceptibility to 'creative accounting'. There is nowadays a consensus among academics who fuelled this debate that little of what was learned has reached or been heeded by those now advocating RC for use in the public sector:

> [W]hat does seem to be unjustifiable is the apparent lack of a coherent approach to the issue of 'current value' accounting in the non-business sector. There seems to have been no concerted effort to draw lessons from the ultimately unfavourable attitude of business. The various regulations give the impression of as many *ad hoc* choices, sometimes leading to possibilities of opportunistic accounting policies, sometimes resulting in figures which even the entities involved have difficulty interpreting. (Camfferman, 1998, pp. 25–6)

> Clearly those who have promoted the drift of both DV [deprival value] and ODV into the public sector have either not heeded that experience with CCA, DV and related concepts in the private sector, or did not know of it. If it is the former, then the public sector reformers must be considered to suffer a certain lack of candour. (Clarke, 1998, p. 16)

RC-based accounting has been promulgated at all levels within the Australian public sector. In 1994 the Steering Committee on National Performance Monitoring (SCNPM, 1994) set out to institutionalize an RC framework by its publication and wide dissemination of asset valuation guidelines closely resembling those of the various CCA (current cost accounting) proposals of the 1970s. In supporting RC (in fact 'deprival value') without qualification or reference to any of the relevant academic or professional literature, this publication (known as the 'red book') effectively suppressed all existing criticism of RC valuation methods,

thereby raising questions of the competence if not integrity of the political process that led to RC being adopted (Johnstone and Gaffikin, 1996; Johnstone and Wells, 1998a, 1998b). The same questions now arise in regard to the regulators' all but unqualified and seemingly ideological support for DORC. In all their various publications dealing with the asset valuation issue, there is no mention whatsoever that RC has an extended history of rejection in the private sector.

The other significant precedent overridden or ignored by regulators—and unmentioned in their written deliberations—is that in the U.S.A. where asset valuation for the purposes of tariff setting has a hundred year history and a vast literature, replacement-cost-based asset valuation has either not been taken seriously or considered and rejected. The authoritative American text on asset valuation for regulation purposes, Bonbright *et al.*, (1988, pp. 296–8), rejects replacement cost valuation as being administratively impractical. For example (see also later quotes):

> [T]he answer must lie in a recognition by practical minded judges, commissioners, and experts, that estimates of the cost that would be incurred in replacing the service by means of a new type of plant if the existing plant were to disappear into thin air are altogether too speculative and too litigious for purposes of feasible administration. When one considers, moreover, that the replacement might well take the form of a change in the very nature of the service, and not just a change in the design and location of the plant —a change, say, from house-heating by gas to heating by electrically-operated heat pumps, etc.—one need not be surprised that the replacement-cost-of-service theory remains today a paper theory. (Bonbright *et al.*, 1988, p. 298; in the words of Bonbright 1961)

> Persons who dislike reproduction cost condemn it for its confusion, its indeterminacy, and its invitation to endless controversy between corporate or investor interests and consumer interests. For reasons . . . presented by Professor Bonbright (1930, pp. 334–410), our convictions support [this] position. (Bonbright *et al.*, 1988, p. 222)

THE REGULATORS' ARGUMENT FOR DORC

Asset owners' formal submissions to regulators and the written determinations of the regulators themselves (particularly ACCC and ORG) contain repeated, albeit scantly supported, claims that replacement cost asset valuation, particularly DORC, has a derivation in economic theory (e.g., ORG, 1998b, pp. 12–13; ACCC, 1999a, pp. 39–40). This view has been recited to the point that its validity is widely taken for granted, albeit without demonstration or acknowledged authority (cf. Productivity Commission, 2001, pp. 216, 220, 222).[12]

[12] The consultant on tariff setting issues with most sway over the ACCC is economist Stephen King of the University of Melbourne. In several of his papers King has argued that DORC (and possibly the building block model in general) is inappropriate in this function (e.g., 1996, p. 295). For example, King (2000a, p. 7) writes 'as I have noted elsewhere, the contestability justification for DORC is dubious and it may not be desirable to replicate the fictitious path of revenues that result from the contestability model'. (see also p. 2). However, in his most recent work, King (2001a, p. 5) concedes that despite his previously oft-stated critique of DORC, he will for the sake of assisting in current deliberations take DORC as given. This resignation would seem to be indicative of the ACCC's committed and apparently axiomatic acceptance of DORC.

The economic argument on which the regulators justify their commitment to DORC, as best as can be construed from their published statements, is that RAB = DORC emulates rational market settings by producing the highest possible tariffs short of those at which a new entrant might be encouraged to duplicate the existing provider's infrastructure (and compete for those tariffs). According to this argument, a profit maximizing asset owner, operating opportunistically in a free market, would fix tariffs at this level for the long run:

> One interpretation of DORC is that it is the valuation methodology that would be consistent with the price charged by an efficient new entrant into an industry, and so is consistent with the price that would prevail in the industry in long run equilibrium. (ACCC, 1999a, p. 39)

> [A]ny value that is in excess of DORC is likely to produce Reference Tariffs that will expose the Service Provider to being by-passed. (ORG, 1998b, p. 58)

The economic theory underlying this conclusion is built around a construct called Tobin's q, after its inventor, Nobel prize winning economist James Tobin. Tobin's q is defined as the ratio of the value of the firm to the replacement cost of its assets. That is:

$$q = \frac{M}{ORC_{used}},$$

where M is defined as the market value of the firm's securities (debt plus equity) and ORC_{used} is the minimum (optimized) cost of replacing its current productive capacity, making allowance for the fact that some of its assets are not of the same capability as when they were new (i.e., they are used). Tobin introduced the q ratio as a way of measuring the level of monopoly power of the firm (Brainard and Tobin, 1968; Tobin, 1969) and of assessing the market incentive for further capital investment. Large q is associated with monopoly profits or economic rents (i.e., profits exceeding costs, including capital costs), these being capitalized by the market in its assessment of M.

In the absence of monopoly rents, the value of q is expected to be near one. For q to exceed one, the market value of the firm (the present value of its projected net cash flows) must be greater than the RC of its assets. In these conditions there are incentives for new entrants or for expansion by existing firms, with the effect that prices will be reduced and q driven towards a value of one:

> The essence of the argument is that for a competitive firm, one would expect q to be close to one, and as we examine firms with increasing monopoly power (increasing ability to earn above a competitive return), q should increase. If a firm's q is greater than one, the market value of the firm is in excess of its replacement cost. If there is free entry other firms could enter the industry by purchasing the same capital stock as the existing firm. Furthermore, they would anticipate an increase in value over their investment because its market value would exceed its cost. Thus, in the absence of barriers to entry and exit, q will be driven down toward one as new firms enter. (Lindenberg and Ross, 1981, p. 2)

According to Tobin's argument, $q = 1$ characterizes a firm operating in a competitive market in long run equilibrium. In these circumstances, the firm is extracting the maximum attainable income stream (product price) without admitting any

opportunity to potential price cutting competitors. Conversely, if q was less than one there would be no incentive for existing firms to renew their assets and the number of competitors would shrink to the point where prices could be raised and q pushed back towards one.

The economic logic of $q = 1$ is easily understood in the context of a simple example. Suppose that a shopkeeper pays a carrier x per parcel for deliveries. At some point (dependent on volume) x becomes so high that the shopkeeper can more economically buy a truck and employ a driver. Or a new entrant can set up and displace the existing carrier. This is the price at or below which the contractor must work if he is to hold on to his customer base and maximize profits (return on capital) over the long run. On the basis of this logic, $q = 1$ is taken to be the definitive feature of an appropriately regulated monopoly, stripped of monopoly rents (i.e., of returns above costs, including capital costs):

> [A] firm which is regulated so as to earn no monopoly rents would have a q close to one. A monopolist, however, who can successfully bar entry and is not adequately regulated will earn monopoly rents in excess of ordinary returns on the employed capital. The market will capitalize these rents, and the market value of the firm will exceed the replacement cost of its capital stock, that is q will persist above one. (Lindenberg and Ross, 1981, p. 2)

> It can be argued that in a competitive market, if a supplier charges a price above minimum efficient cost of supply, then new entrants will be attracted into the market by the abnormal profits which are available; as a result, market prices for outputs, and the market value of business enterprises supplying those outputs will tend towards cost... The above propositions are consistent with the theory of the relationship between the market value of assets and their replacement cost developed by the economist James Tobin. The ratio of the market value of a company's debt and equity to the current replacement cost of its assets is known in the finance literature as *Tobin's Q*. Tobin argued that when Q is greater than 1 (that is, when capital equipment is worth more than it costs to replace), firms have an incentive to invest, and that they will stop investing when Q is less than 1 (when equipment is worth less than its replacement cost)... On this basis... it is accepted, in principle, that the use of ODRC [DORC] asset values and a market based estimate of the WACC is intended to mimic the outcomes of a competitive market. (ORG, 1998a, p. 5)

To measure q the regulator has to find the minimum ('optimized') RC of the firms used assets, or more precisely, of the cost of replacing the partially depleted productive capacity represented by those used assets. With there being no second-hand markets for the kinds of assets in question (excepting scrap metal markets), regulators have treated DORC as a proxy for the cost of used assets, and hence implicitly re-defined Tobin's q as

$$q = \frac{M}{DORC}.$$

The final step in the regulators' program to impose $q = 1$ is to fix the initial regulatory asset base, RAB_0, such that the market value of the entity, M, equals DORC. Thinking of M as the PV of the tariff stream, this requires merely that $RAB_0 = DORC$, since $PV = RAB_0$ as shown by equation (4) above.

THE REGULATORS' THEORY CORRECTED

The regulators' standpoint on asset valuation, reiterated as faithfully as possible above, is that DORC-based tariffs mimic the discipline of a competitive market. More specifically, DORC is held out as the upper limit on RAB, above which a new entrant would be attracted, and is therefore the asset base on which a profit maximizing asset owner would fix tariffs in a contestable market:

> A return on replacement cost is the maximum that a monopoly firm could earn in a perfectly contestable market. (ACCC, 1998b, p. 32)

> [I]f prices reflect a value that is in excess of DORC, then users would be better off if the existing system were scrapped and replaced by new assets. (ACCC, 1999a, p. 40)

This argument requires that DORC equals or approximates the amount that a new entrant would have to pay to replicate existing infrastructure. The difficulty, however, is that a new entrant in the market for energy transmission services would have to pay full (undepreciated) ORC to duplicate (bypass) existing infrastructure. There is no second hand market on which one can buy an *in situ* electricity grid or a gas pipe network, or even the individual components thereof.

Allowing for this market reality, King (2001a, p. 8) specified a present value model which correctly defines the competition exclusion limit on the regulatory asset base. This model is clarified and completed below. The end result is a logical reconstruction of DORC effectively correcting the regulators' theoretical framework.

Consider the position, at time t, of a potential new entrant under the assumption that any replaced assets last 'forever' (i.e., to the point that subsequent cash flows make no difference in PV terms). Suppose that the new entrant expects to take from the incumbent a proportion ρ of the existing (projected) tariff stream, tariffs being set by the regulator based on the incumbent's book DORC (as per tariff equation (3) above).

Under these assumptions, the new entrant, commencing operations at time t, would earn tariffs worth (at time t)

$$\left\{P_t + \frac{ORC_t(1+g)^{T-t}}{(1+WACC)^{T-t}}\right\}\rho$$

where ORC_t is the time t replacement cost of all new assets, g is the (technology dependent) growth rate of this replacement cost, WACC is the regulated and actual cost of capital, T is the time at which the incumbent's assets require replacement, and $P_t = RAB_t$ is the present value at time t of the tariff stream to be earned by the incumbent from existing assets over the years between t and T. The second term within the parentheses represents the PV (at time t) of the tariffs generated by new assets built by the incumbent at time T (when existing assets expire).

There is no obvious basis on which to estimate the new entrant's possible market share, but to be consistent with the regulators' argument, it is assumed that $\rho = 1$, meaning that the new entrant will completely displace the incumbent, taking

over the entire tariff market (ORG, 1999, p. 17). This is of course an unrealistic possibility (see below), and can be treated only as a 'theoretical' limiting case. Its event would require circumstances where, for example, the new entrant, before making any investment, tied all asset users into very long term (e.g., thirty year) futures contracts. Equivalently, the new entrant might theoretically be a co-operative of all asset users, bound together by long term agreements to self-supply using newly constructed assets bypassing those of the incumbent.

Taking the indifference condition for new investment as NPV = 0 (at discount rate r = WACC), a potential new entrant is motivated to enter the market provided that the PV of its tariff revenues equals the cost of all new assets, ORC_t. Thus, on the assumption of $\rho = 1$, the time t new entrant condition is

$$\left\{P_t + \frac{ORC_t(1+g)^{T-t}}{(1+WACC)^{T-t}}\right\} = ORC_t. \tag{6}$$

Put another way, the PV of future (remaining) tariffs flowing from existing assets (RAB_t) required to motivate a new entrant is

$$P_t = ORC_t\left\{1 - \left[\frac{1+g}{1+WACC}\right]^{T-t}\right\}.$$

Provided that the asset inflation rate g is not greater than or nearly equal to WACC, and the remaining life of the incumbent's assets $T - t$ is large, it follows that P_t is approximately ORC. These conditions are typical of energy infrastructure assets ('pipes and wires'), the replacement cost of which is commonly contained or even reduced by technological progress. In effect, therefore, the regulators' economic framework implies a RAB close to ORC, and thus invites the incumbent to 'arrange' an ORC valuation such that book DORC—however set by the regulator—approximates true ORC, thereby laying claim to a stream of tariffs consistent with existing transmission assets being all near new. For instance, suppose the regulator agrees to DORC at 75 per cent of ORC, as is quite typical of Australian regulatory determinations. Then book ORC can be inflated to 1/0.75 = 133% of true ORC without introducing any opportunity for a new entrant.

Dynamic Reconstruction of DORC

It is clear from their statements of economic logic that the ACCC/ORG intended in principle (if not consequence) to employ the new-entrant-exclusion condition, here represented by equation (6), to set the initial regulatory asset base, $RAB_0 = P_0$. Given that existing infrastructure assets will generally not require replacement for many years (if ever), this static application of (6) almost always leads to RAB_0 near ORC_0, as shown above. There has been no suggestion, however, that the same economic logic will play any part in determining subsequent written down asset values, RAB_1, RAB_2, etc. Rather, regulators have not committed to any one depreciation scheme, and have generally treated the time pattern of depreciation

as something to be settled between themselves and the various interested parties, particularly asset owners and users (see above).

To be consistent in their proposed regulatory asset valuation logic over time, equation (6) must be applied continually over time, re-setting RAB_t at the end of each year (at each time $t \leq T$) to its maximum possible, new entrant exclusion level P_t. Such dynamic application of (6), introduced in a submission to the ACCC by Agility Management (2000) and clarified by King (2001a), makes sense of the regulators' argument for DORC. It requires that DORC be re-defined dynamically, not as an essentially arbitrary (e.g., straight line) function of ORC, but specifically as the time-dependent new entrant tariff threshold P_t. That is,

$$DORC_t = P_t = ORC_t\left\{1 - \left[\frac{1+g}{1+WACC}\right]^{T-t}\right\} \tag{7}$$

where $DORC_t$ represents the value of DORC at period end t. Understood this way, $DORC_t$ is by definition the theoretical new entrant exclusion bound on RAB_t (i.e., on RAB_1, RAB_2. . . . etc.), and the regulators' economic argument for DORC is rationalized. However, to meet the requirements of this corrected theory, the ACCC and other regulators must recognize and apply the full consequences of (7), including particularly its implied depreciation scheme.

Implied Depreciation

Definition of $DORC_t$ as the competition exclusion limit P_t implies a scheme of depreciation where the period t write-down, $P_{t-1} - P_t$, is from (7)

$$ORC_{t-1}\left\{1 - \left[\frac{1+g}{(1+WACC)}\right]^{T-(t-1)}\right\} - ORC_t\left\{1 - \left[\frac{1+g}{(1+WACC)}\right]^{T-t}\right\}.$$

Simplifying this expression gives period t depreciation

$$P_{t-1} - P_t = ORC_{t-1}\left\{WACC\left[\frac{1+g}{1+WACC}\right]^{T-t+1} - g\right\}$$

$$= ORC_T\left\{\frac{WACC}{(1+WACC)^{T-t+1}} - \frac{g}{(1+g)^{T-t+1}}\right\}. \tag{8}$$

If the economic logic underlying regulatory asset valuation is to continually re-set RAB_t over all $t \leq T$ to the theoretical maximum no-new-entrant level, any other depreciation pattern (e.g., straight line) is inadmissible. This point of economic logic is stressed by King (2001a) in his commissioned report to IPARC (Independent Pricing and Regulatory Commission) responding to the Agility submission: 'No other form of adjustment from ORC to DORC is consistent with the economic justification for DORC' (King, 2001a, p. 10).

Although not by design, equation (8) with $g = 0$ coincides with the ACCC (1999a, p. 66) definition of 'annuity depreciation' (a special case of their 'competition depreciation'; see above). The term 'annuity depreciation' arises for the reason that when $g = 0$ the tariff stream ensuing from depreciation defined by (8) is an annuity. That is, tariffs are constant over all periods $t \leq T$. This is demonstrated below.

Effect on Tariffs

The full tariff consequences of the reconstruction of $DORC_t$ specified in equation (7) are revealed as follows. Apart from operating costs, the tariff paid to asset owners at time t is from equation (3)

$$[P_{t-1} - P_t] + (P_{t-1} \times WACC).$$

Substituting for P_{t-1} and $P_{t-1} - P_t$ using (7) and (8) gives a time t tariff equal to

$$ORC_{t-1}\left\{WACC\left[\frac{1-g}{1+WACC}\right]^{T-t+1} - g\right\} + ORC_{t-1}\left\{1 - \left[\frac{1+g}{(1+WACC)}\right]^{T-t+1}\right\}WACC$$

which simplifies to

$$ORC_{t-1}[WACC - g]. \tag{9}$$

In the case of infrastructure assets, g is likely near zero (in real terms). With $g = 0$, period t tariff is a constant (ORC × WACC), where ORC is the initial and constant (since $g = 0$) optimized replacement cost of all new assets. This is in effect the same result as if the asset owner postponed all depreciation until asset expiry date T. A full return of ORC would be reimbursed at that time T, which from today's (time t) perspective would have effectively zero present value (again assuming large $T - t$).

A corollary of this equivalence (in present value) between annuity depreciation and non-depreciation is that if the regulated WACC exceeds the true WACC, asset owners' optimal depreciation scheme is annuity depreciation. In these circumstances, owners would prefer to take no depreciation returns of capital (thus not reducing the pool producing the positive spread between regulated and true WACC). This is not allowed, but for long-lived assets, annuity depreciation produces mathematically the same result. More formally, as $T - t$ increases, the owner's NPV based on annuity depreciation approaches that based on no depreciation at all, and for $T - t = 30$ say, this equivalence is virtually exact.

Numerical consequences of the DORC reconstruction outlined above are exhibited in Figures 1 and 2 below.

Figure 1 graphs the behaviour of $DORC_t$ over all periods $t \leq T$ ($T = 30$) under the parameter values $g = -0.02$, $g = 0$ and $g = 0.05$. These results are based on an ORC_0 of $100 and a WACC of 7.75 per cent. Figure 2 shows corresponding period t tariffs over the same time interval $t \leq T$, with the same three possible values of g.

FIGURE 1

DORC OVER TIME $t \leq T$ ($T = 30$ AND $ORC_0 = 100$)

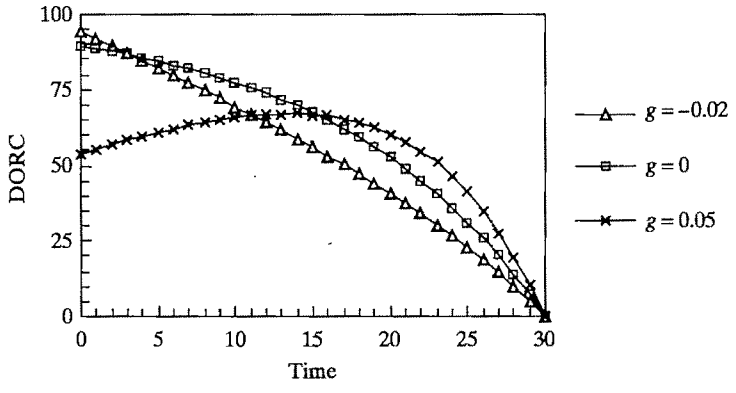
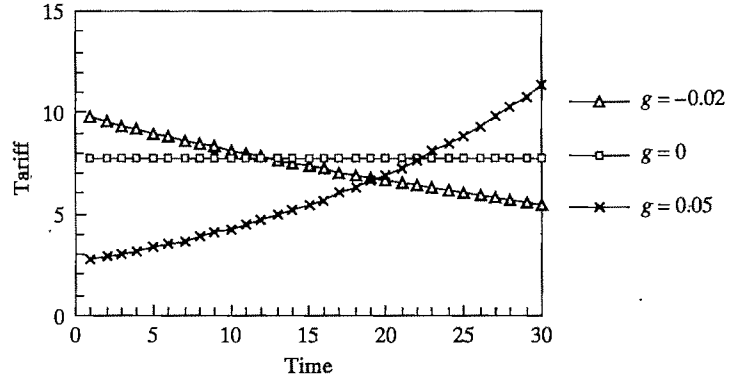


FIGURE 2

PERIOD TARIFF OVER TIME $t \leq T$ ($T = 30$ AND $ORC_0 = 100$)



Some explanation of these functions is warranted. To understand the behaviour of $DORC_t$, it is helpful to rewrite (7) as

$$DORC_t = ORC_t - \left[\frac{ORC_t(1+g)^{T-t}}{(1+WACC)^{T-t}}\right]$$

$$= ORC_t - \frac{ORC_T}{(1+WACC)^{T-t}}. \qquad (10)$$

This alternative expression reveals that $DORC_t$ is equal to ORC_t minus the present value of the cost of new assets due at T. In general, therefore, $DORC_t$ falls as T (asset replacement) approaches. The exception to this rule is where g is high meaning that ORC_t increases rapidly over time, in which case $DORC_0$ is very low relative to ORC_0. This can be explained by the insight that with high g the

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cost of new assets is growing quickly, and therefore a new entrant is more motivated than when g is zero or negative to invest immediately rather than wait until T. To close off this heightened threat of system bypass, the incumbent can afford only low $DORC_t$ in the early periods. Tariffs then rise for a time with increasing ORC_t, and finally, as expiry draws closer, the physical state (short remaining life) of existing assets takes over and their value approaches zero regardless of the cost of their replacement (i.e., regardless of the asset inflation rate g).

Turning now to Figure 2, note from (9) that time t tariff is a linear function of ORC_{t-1}. When ORC_{t-1} is constant ($g = 0$), so are tariffs, and when ORC_{t-1} increases (decreases) tariffs do also, provided that WACC > g. Such direct positive connection between maximum (new-entrant-exclusion) tariffs and the replacement cost of the underlying infrastructure is an intuitively plausible aspect of the reconstructed theory of DORC. The most striking observation in Figure 2 is the initially very low level of tariffs under high g. This relates to the correspondingly low DORC and is explained (the same way) by the added impetus to bypass aging assets when their replacement cost is rising quickly.

To see the 'g effect' clearly at work, imagine that g = WACC. In this case, $DORC_t$ and thus period tariff is always zero as per equations (7) and (9). There are several ways to understand this. The most intuitive is that because the cost of new assets is growing at a rate equal to the cost of capital, there is no reason not to make their inevitable replacement immediately. By implication, existing assets are redundant and valueless.

A formal proof of this result is as follows. The cost of new assets at any time t is ORC_t. If g = WACC, this is exactly equal to the present value of the cost of new assets in one period's time. That is,

$$ORC_t = \frac{ORC_t(1+g)}{(1+WACC)} = \frac{ORC_{t+1}}{(1+WACC)}.$$

It follows, therefore, that the investor (either the incumbent or a new entrant) is indifferent between buying new assets today or at any time in the future. Replacement of existing infrastructure will therefore occur immediately unless transmission services are provided by the incumbent free of any capital charge. Existing assets are thus of no value.

The more extreme possibility is g > WACC. In these circumstances, the incumbent or new entrant is motivated to buy new assets as soon as possible, since their cost is increasing at a rate greater than the cost of capital. In this case, existing infrastructure takes not zero, but negative value, since the capital component of tariffs must be negative (owners must pay users) if system bypass is to be prevented. This will of course not occur, since the incumbent is better off ceasing all operations. System replacement will therefore proceed immediately, as is sensible in the circumstances.

Note that the dynamic DORC reconstruction described above, including all equations and calculations, holds either in real or nominal terms. All that is required is consistency. Thus, if WACC and g are expressed in real (nominal) terms, then P_t, ORC_t, and $DORC_t$ must be in real (nominal) dollars.

New Entrant IRR

System bypass with tariffs defined by (9) offers, at any time t, an IRR equal to the regulated WACC. Proof is as follows. A new entrant invests ORC_t at time t, and acquires the remaining tariff stream from existing assets (beginning at time $t+1$ and ending at time T), plus a tariff perpetuity thereafter (beginning at time $T+1$). The IRR on this investment is given by r such that

$$ORC_t = \sum_{j=t+1}^{T} \frac{ORC_{j-1}(WACC - g)}{(1+r)^{j-t}} + \sum_{j=T}^{\infty} \frac{ORC_j(WACC - g)}{(1+r)^{j+1}}.$$

Simplifying this equation gives

$$ORC_t = ORC_{t-1}(WACC - g)\left[\frac{1}{(1+k)} + \frac{1}{(1+k)^2} \ldots + \frac{1}{(1+k)^{\infty}}\right]$$

$$= \frac{ORC_{t-1}(WACC - g)}{k}$$

where $(1+k) = (1+r)/(1+g)$, and then eliminating k

$$(1+g) = \frac{(WACC - g)(1+g)}{(1+r) - (1+g)}$$

leaves r = WACC. It follows, therefore, that a time t new entrant obtains IRR = WACC, regardless of t.

Bell and Peasnell (1997)

Although developed independently, the mathematical model of regulatory asset valuation and depreciation detailed above has much in common with a model proposed by Bell and Peasnell (1997) defining the value of a used asset (of arbitrary age) as a function of (a) the replacement cost of a new asset, (b) the different lives and maintenance cost streams of used and new assets, and (c) the opportunity cost of capital. Apart from superficial differences such as those of context and formal presentation (e.g., expression in terms of equivalent annual cost measures rather than actual cash flows) the two models are analogous. The only differences of any substance are that (a) the model above allows for asset price changes over time (real or nominal) through its growth factor g, and (b) in the regulatory case, there is no need to allow for the disparity in maintenance cost streams between new and used assets as the regulators' tariff formula simply reimburses the owner for these regardless of whether they are high because of old assets or low because of new ones. To our knowledge (personal communication, 2002), no like model exists in economics literature on the theoretical market value of a used asset (regulated or otherwise) relative to the price of a new replacement and the respective (differential) capital costs. This would seem to be an important topic for further development in the three related disciplines, finance, accounting and economics.

MORE PRACTICAL CONSIDERATIONS

In theory, $DORC_t \equiv P_t$ is the RAB level at which a new entrant (system bypass) is economically viable. More realistically, it is likely that even full ORC underestimates the level required of RAB to entice a new entrant. Indeed, even at tariff levels well above those based on 100 per cent ORC, the real world possibility of large scale network bypass is likely to remain negligible. Supposing tariffs were so high as to induce a competitor, or user cooperative, to contemplate green-fields duplication of such massive infrastructure, what market share would such a new entrant be guaranteed when the incumbent could hit back with lower tariffs commensurate with the relatively very low marginal capital costs attaching to sunk assets? At this point the two competing networks would both be sunk, forcing the competitors into either sharing the market or a price war based in the extreme on short run marginal costing. Neither prospect is likely to appeal to any potential new entrant. For very much the same reason, Baumol *et al.* (1982, pp. 290–1) interpreted the incumbent's sunk costs as effectively a barrier to new entrants:

> Sunk costs to some degree share with entry barriers the ability to impede the establishment of new firms . . . the incremental cost, as seen by a potential entrant, includes the full amount of the sunk costs, which is a bygone to the incumbent. Where the excess of prospective revenues over variable costs may prove, in part because of the actions of rivals, to be insufficient to cover sunk costs, this can constitute a very substantial difference. This risk of losing unrecoverable entry costs, as perceived by a potential entrant, can be increased by the threat (or the imagined threat) of retaliatory strategic or tactical responses of the incumbent . . . The additional expected revenue that a potential entrant requires as compensation for the excess of its incremental cost and incremental risk over those of the incumbent becomes an entry cost as defined here and permits the incumbent to earn corresponding profit (rent).

Consider, for example, a new entrant with the prospect of, say, a 50 per cent market share. Thinking in no more than these simple terms, tariffs would have to be based on a RAB (book DORC) of double-ORC or more before any genuine possibility of economically driven duplication could occur. Given the manifest risks, technological and other barriers to entry, and general political inconceivability of any investor, private or government, duplicating already functional and typically much less than fully-utilized energy transmission networks, the RAB level truly required to prompt such a decision is hard to imagine. In reality it is only in circumstances where existing infrastructure assets are at or approaching full usable capacity, or grossly below par (e.g., technologically defective or greatly inefficient in terms of operating costs) that there is actually any threat of a new entrant. This is openly conceded by the ACCC, at least in relation to the main trunks of existing networks: 'While the significant entry and exit costs that characterize electricity transmission make large-scale duplication of the existing system unlikely, by-pass may be feasible at the edges of the network' (ACCC, 1999a, p. xi). The practical effect of this economic and political reality is that incumbent asset owners, establishing their initial RAB, are virtually unrestrained by the risk of competition, contrary to the regulators' economic logic. In practice, initial DORC could be set

at double-ORC and there would remain negligible chance of a new entrant and large scale system bypass. This must be obvious to asset owners, and is bound to encourage pervasive overstatement of asset values (ORCs and thus DORCs).

The most effective constraint on existing asset owners' initial DORC valuation, apart from any indirect benchmarking by the regulator, is the level to which the 'independent' engineering valuers, hired by asset owners to find this value, are ready to stretch. Given the alleged failures of independence of auditors in other, innately less subjective asset valuation contexts, the analogous economic incentives applying to engineering based DORC-valuers in tariff setting, and the scope for 'creative engineering', should be of serious concern to regulators.[13] When seen in this light, the market discipline purportedly inherent to tariff settings based on DORC is more a product of economic sophistry than economic theory.

BROADER ECONOMIC ARGUMENTS AGAINST REPLACEMENT COST

The practicalities raised above suggest that DORC, interpreted as the new entrant exclusion threshold, is wrong on its own terms. Whereas a shopkeeper might be motivated by carrier price rises to buy a delivery vehicle, an oil and gas producer is not so readily convinced to duplicate a thousand kilometres of gas pipeline. Widening the economic criteria on which replacement cost valuation of existing assets is evaluated strengthens this rejoinder. The following economic arguments are all relevant and all point to DORC as either having no special significance or being flawed and bound to produce undesirable outcomes. These arguments are provided not in any order of importance.

(i) DORC Not Necessary to Ensure Continued Optimal Asset Use

From the point of view of optimal resource allocation, sunk assets should be viewed only in terms of what they have left to contribute, either in use or by sale. If they are more valuable for what they can add to future production, they should be retained. Otherwise they should be sold for their remaining net realizable (scrap) value (NRV). Their cost to replace is of no relevance. The entity has already built them and the current cost of doing so again makes no difference to the present (sole remaining) decision of how best to utilize them.

Taking this resource allocation perspective, regulators must ensure that essential transmission assets are valued at or above their NRV. If the RAB value of an asset is lower than its NRV, the incumbent asset owner will rationally sell the asset (its NRV will exceed the NPV of its contribution to the tariff stream). The economic lower bound on RAB is thus NRV (Whittington, 1998a, p. 94; King, 1997, pp. 5–6; 1998, pp. 1–3). Provided RAB is not less than NRV, existing productive assets will remain in current (presumably optimal) use. Apart from the

[13] The valuer J. P. Kenny (commissioned in March 1996 by the Gas Council to audit the AGLGN ORC estimates) revealed its own dissatisfaction with what was manageable and conceded that it was only the time and other constraints imposed on it that justified its 'interactive' (with AGLGN) approach to the AGLGN valuation. See Johnstone (1999a) and Energy Markets Reform Forum (2000) for general discussion regarding the AGLGN valuation process.

fact that for specialized infrastructure assets, DORC is generally (much) greater than NRV, the economic objective of continued optimal allocation of existing assets affords no special significance to RAB ≡ DORC.

(ii) DORC Harms Downstream Allocative Efficiency

The marginal capital cost of using an existing asset when that asset has little realizable value is by necessity very low. Moreover, marginal access costs are greatly overstated if capital charges are based on DORC or any asset valuation significantly higher than NRV. This leads to systematic under-use of existing transmission assets by energy users. King (1996, p. 293–5; 1998, pp. 3–4) refers to this unfortunate consequence of RC-based asset valuation as a type of allocative inefficiency. In essence, users ready to pay the long run marginal cost of access are priced out of the market by tariffs significantly greater than marginal cost:

> The deprival value methodology promoted by the draft electricity access code will set an initial base for transmission utility assets that significantly exceeds scrap value. These inflated valuations of existing, sunk assets will feed into retail electricity prices, resulting in a reduction in allocative efficiency . . . The valuation rules chosen by the NGMC [National Grid Management Council] are likely to be administratively difficult, contentious and inefficient. (King, 1996, p. 295)

> To the degree that regulated asset valuations feed into uniform prices that exceed (congestion adjusted short-run) marginal cost, either directly or further down the production chain, then the deviation of price from marginal cost will lead to a reduction in trade from the economically efficient level. Such a reduction leads to what economists call an 'allocative inefficiency' or a 'dead weight loss'. It represents a decrease in gains from trade from the production and consumption of the relevant product(s) compared to the best achievable level of gains from trade. (King, 1998, p. 4)

Closely related arguments on allocative efficiency underpin the rejection of replacement cost valuation by Bonbright *et al.* (1988):

> With a public utility system operating at a scale at which further enhancements in rates of output can take place with less than a proportionate increase in operating and capital costs (conditions of decreasing unit costs), such rates will exceed the incremental or marginal costs of the service. Yet, under the economists' theory of socially optimum pricing, the important relationship between prices and costs is an equality, under long-run equilibrium conditions, between prices and *marginal* costs. Hence, if socially optimal resource allocation were to be accepted as the primary objective of ratemaking policy, as the replacement-cost advocates insist, what would be required is not a mere transfer from an original-cost standard to a replacement-cost standard, but rather a transfer from *any* standard of total cost to a standard of incremental cost . . . if we accept provisionally the assumption that most public utility enterprises are operating under conditions permitting the enjoyment of further economies of scale, and if we also assume that current replacement costs of service would be higher than historical costs, the acceptance of a replacement-cost principle would seem to be a step in the wrong direction.

From an obvious practical viewpoint, there is something wrong with a tariff base that works against expanded and perhaps even existing use of a sunk gas or electricity transmission network currently working at much less than full capacity. For a nation to build such long-lived infrastructure at great sacrifice and then not

use it to anything like its available capacity for the reason that it would cost a lot to replace verges on economic absurdity. The anomalies brought about by replacement-cost-based charges for the use of under-utilized sunk infrastructure were raised in a submission by the National Farmers' Federation (2000, p. 6) to the Productivity Commission concerning the national rail access regime:

> High fixed charges for rail access may simply mean some areas go out of cultivation for bulk crops. It is worth noting that road transport does not have access charges and this is the optimal pricing strategy for public network infrastructure in the absence of congestion. If roads were charged for on the basis of fixed access charges, most regional and rural communities would be closed down. Why should other infrastructure be charged for in such a detrimental way?

It might be reasonable to restrict usage of something which has already been built if usage of itself meant deterioration, and thus additional maintenance and refurbishment costs, or if additional usage brought quickly forward the time at which the network was no longer large enough and required parallel enlargement. But in the case of Australian gas pipelines, main trunks are typically at approximately half or much less than full capacity and the additional throughput does not cause wear and tear or any economic loss.[14] Rather, the life of the network, if not effectively infinite or limited only by the energy deposits at source, is affected by corrosion rather than usage. Regardless of whether assets will require eventual replacement or not, each period of under-use represents an irrecoverable opportunity to make something of an asset which is already in place and able to be used at negligible marginal cost: 'a gasoline pipeline is available for use both now and later and a failure to use it now does not prolong its life later' (Lim and Dwyer, 2001, p. 31).

This way of thinking raises concern over the net benefits to the Australian economy of selling off infrastructure assets by attaching an artificial DORC-based profit stream to them, locking in tariffs at the high end of economic plausibility, and thus mechanically inflating asset sale proceeds. The antithetical philosophy is that there exists already a largely unused infrastructure, where extra use causes only low marginal cost, and hence an opportunity to build competitive advantage and sponsor industry by judicious transmission pricing. The choice between these two models reduces to one between money now (the proceeds of privatization) and money later (profits from downstream economic activity). Representatives of a group of Australian energy dependent companies called the Energy Markets Reform Forum have argued before the ACCC that the latter of these possibilities is overlooked in the regulators' push to enshrine DORC:

> In these cases (of natural monopoly infrastructure enjoying increasing returns to scale) marginal cost pricing is efficient and *should* result in losses. But those losses will be offset

[14] Regarding gas pipelines, B. Henson (personal communication, 18 August 1999) writes: 'Wear and tear is all but totally insensitive to throughput. There are no moving parts except a few valves, and these move in response to variations in flow, not the absolute flow rate . . . The pipe lives that have been assumed for depreciation are just that—assumptions—as there is little or no experience of replacing "natural gas era" pipelines (the last 30 years).' Henson notes also that no gas trunk built in the U.S.A. since World War II has been replaced.

> by external benefits and spin-offs. The infrastructure will generate investment, profits, employment and wages in downstream industries. (Energy Markets Reform Forum, 1999, p. 2)

It could be argued that access prices that are 'too low' equally result in allocative inefficiency, by encouraging the establishment and expansion of user businesses which cannot remain viable once existing network assets require replacement and tariffs are increased to match costs of replacement (i.e., once the new assets come onto the RAB at cost). However, in the unique case of existing long life infrastructure operating well below capacity, and expected to remain this way for many years, this otherwise logical argument is inapplicable. In these circumstances, an economically sensible and more broadly responsible pricing approach by regulators would admit the notion that existing infrastructure need not return as much to owners as if it had to be built at today's prices. This does not mean that regulators need take the other extreme and price existing infrastructure at NRV. Rather there is much to be said for some middle ground solution, allowing fairly and pragmatically for the service providers' historically accumulated interest commitments and obligations to equity investors.

There are of course many subtleties ignored by the simple notion that existing infrastructure can be operated at relatively negligible marginal cost, including capital cost. Newbery (1997, p. 3) explained that low transmission tariffs based on heavily written-down asset values might prevent strategically preferable infrastructure expansion. His example is that of north sea gas being transported into the south of England through existing gas pipelines rather than power being generated in Scotland, near the beach-head, and then carried to south-west England through a reinforced electricity grid.

(iii) DORC Provides Existing Asset Owners With a Free Lunch

Under the regulators' tariff formula (3) each dollar granted in RAB locks in place a future tariff stream with present value (at discount rate r = WACC) of one dollar. By writing up the value of existing assets to DORC, the asset owner gains the amount of that write-up (revaluation) in NPV. This NPV windfall—and accordant share price increase—is achieved by a mere book entry with no actual cash outlay.

Whittington (1994, p. 93, 1998a, p. 93) made this same observation in relation to some British gas and water privatizations. It was typical in Britain that the amounts paid by the new private owners of these entities were significantly less than aggregate asset book values. Whittington warned that tariffs based on book values rather than the actual cost (cash spent) asset base would present the new asset owners with large wealth windfalls at the expense of gas and water consumers who would be left to pay the inflated RAB-based tariffs:

> To adopt a replacement cost or current cost approach at this late stage would involve a very large transfer of wealth from the consumer to the shareholder, which would be inconsistent with the requirement that the regulator strike an appropriate balance between these interests by allowing a return sufficient to justify the shareholders' investment but not excessive from the perspective of the consumer. (Whittington, 1998a, p. 93)

The legacy of inflated asset values according to Whittington (1994, p. 93) is that regulators will have committed to a tariff stream that over time looks increasingly anomalous.

In Australia, the case of AGLGN (Australian Gas Light Gas Network) differs from the British experience only in that the company already owned all existing assets. AGLGN has been arguably better treated than the British investors, in that it is has been allowed a large upward shift in its asset values above depreciated cost, and consequently a significantly enhanced tariff stream, all for no additional investment. It is difficult in the AGLGN case to value objectively the 'free lunch' allotted to the company by the regulator's acceptance of DORC. When a DORC-based tariff stream is bought by additional investment, as in the circumstances described by Whittington and those of the Victorian privatizations, the NPV windfall is measured by the difference between the amount paid and the deemed RAB (on which subsequent tariffs are based). But when a DORC-based tariff stream is simply decreed to an incumbent owner whose existing assets have no objective current market value—that is, no value independent of their regulated book value—there is no theoretical benchmark against which to compare the PV of the new tariff stream.

Perhaps the only reasonable comparison is that of the so-called 'line in the sand approach'. This was a notion initially favoured by IPART (e.g., 1998, p. 35, 1999a, p. 9), where to get around the problem of the non-existent market value of existing assets, the regulator worked backwards taking pre-existing tariff levels as a pragmatic starting point. The imputed asset value is then the capitalized value of future tariffs, where their existing level is specified and taken as given like a 'line in the sand' (ACCC, 1998a, p. 27; King, 1998, p. 11). Taking this approach, the windfall to the existing owner can be gauged by simply comparing the new DORC-based tariff stream with the old tariffs as they existed when regulatory reforms and 'access regimes' were initially introduced.

In the case of AGLGN, DORC-based tariffs are appreciably greater than their pre-existing levels. Since these tariff increases have been achieved without corresponding investment in new assets, it is reasonable to argue that the advent of DORC has presented AGLGN with an NPV windfall. The amount of this windfall is obscured by doubts over the legitimacy of pre-existing tariff levels (ORG, 1998b, p. 59; IPART, 2000, pp. 80–1). For example, one point of view put by AGLGN is that these were 'artificially' low and therefore not commercially sustainable. The stiffest possible response to this, as noted by Lim and Dwyer (2001, p. 25), is that because AGLGN assets were already sunk, any tariff level exceeding one based on scrap value is 'sustainable' in a strict economic sense:

> A ruthless application of economic logic might suggest that as the assets are sunk assets with no alternative use except as scrap, the initial capital base should be close to zero. There is no opportunity cost where capital has been sunk. No regulated revenue stream has to be awarded to induce investment to create what already exists or to keep in place what has no alternative use.

From this perspective, AGLGN was really in no position to argue. Quite to the contrary, the regulator might have chosen to enact a distinction in principle

between sunk assets and those not yet built. Sunk assets could have been valued at DAC or even lower, even at NRV (scrap), without prompting any misallocation of resources. Even at RAB approaching NRV, AGLGN would have no economic choice but to use existing assets in their existing (presumably optimal) way. When seen this way, the regulator's decision to treat existing and new assets alike appears unnecessarily generous. By opting essentially arbitrarily to base tariffs for existing assets on DORC, regulators have guaranteed the profitability of asset owners and gambled that infrastructure users and downstream energy consumers will cope without politically manifest damage to their profitability and economic expansion.

(iv) DORC Not Necessary to Promote New Investment

The underlying economic rationale of tariff equation (3) is that asset owners earn a 'market' rate of return on their investments. This is achieved equally whether new investments are brought onto the regulatory balance sheet at DORC or DAC; or more precisely at ORC or AC, since for new assets there is no accumulated depreciation. Moreover, for a new asset RC = AC by definition, and assuming the investment is 'optimized', ORC = OAC = AC (ACCC, 1998b, p. 31). Provided that subsequent asset revaluations are precluded under either an ORC or AC approach, it makes no difference practically whether the amount spent on new assets, and added to the regulatory balance sheet, is called RC or AC (ORC or OAC). Either way, the PV of the ensuing tariff stream is equal to the cash amount invested and hence the NPV (at r = WACC) is zero, as expected of an efficient capital market.

For there to be any difference between DORC and DAC (DOAC) in regard to new assets, regulators must envisage that DORC and DAC asset values (and thus periodic tariff flows) will not remain the same over time despite their initial equivalence. This could be for two reasons. The first is that DORC and DAC depreciation patterns may be different. Of itself, however, a difference in the time allocation of a given depreciation sum makes no difference to the NPV of the tariff stream (see above) and hence does not explain why DORC rather than DAC is technically necessary to secure new investment. A better explanation is that regulators foresee subsequent asset revaluations (book value increases without new investment) under one approach but not the other.

The Treatment of DORC Revaluations.

In its *Draft Statement of Principles*, the ACCC clearly acknowledged its anticipation of periodic DORC revaluations:

> It is conceptually possible to consider a notional DORC revaluation of the regulatory asset base on an annual basis as the main basis for assessing how the RAB should move over time and what allowance should be made for depreciation within the cost of service calculations. (ACCC, 1999a, p. 48)

> The NEC [National Electricity Code] does not preclude the regulator from periodically revaluing the regulatory asset base according to a valuation methodology such as DORC. (ACCC, 1999a, p. 49)

Other ACCC statements similarly supportive of DORC revaluations are not hard to find. For example:

> The maintenance of revenue streams over time at a level that is consistent with a DORC asset valuation will minimize the likelihood of significant shocks to tariffs as the replacement of assets becomes necessary. As the existing assets will dominate the capital base and therefore tariffs for a number of years, this objective of maintaining comparability of tariffs from one generation of assets to another can only be achieved if the existing assets are re-valued over time at or close to DORC. (ACCC, 1999b, p. 1)

The 'no free lunches' principle precludes asset revaluations—that is, real increases in RAB by mere book entry—unless these are treated as income, using the extension (5) of the usual tariff equation explained above. Thus far in Australia, regulators have given no clear decision on how they will treat revaluations. It should be noted, however, that if they apply the new-entrant-exclusion logic (dynamic DORC) model reconstructed above, then revaluations will be treated correctly as income. This is implicit in equation (8) which effectively reduces the period depreciation expense (cash reimbursement) to owners by the amount of an asset revaluation (increase in $DORC_t$) attributable to growth in the replacement cost of new assets, ORC_t. It can be seen from (8) that the change in asset value over the period, for which owners are compensated in cash, includes (a) the effect of assets being one period older

$$ORC_T\left\{\frac{WACC}{(1+WACC)^{T-t+1}}\right\} \tag{11}$$

less (b) a revaluation recognizing the increase in ORC_t over the period and consequent upward effect on $DORC_t$

$$ORC_T\left\{\frac{g}{(1+g)^{T-t+1}}\right\} = ORC_{t-1}g. \tag{12}$$

Service providers are therefore reimbursed in cash for the depreciation of assets caused by age (11) by way of a cash amount (8) plus a capital gain (12). In effect, the capital gain is taken as income, thus reducing the period tariff (cash) paid to asset owners, the more so the greater g. Note, for example, the initially small tariffs when $g = 0.05$. In these early periods, the new entrant asset value $DORC_t \equiv P_t$ is growing, and thus the incumbent earns period returns that are partly capital gain (increase in $DORC_t$) and correspondingly less cash (i.e., less tariff income). Eventually, of course, these 'capital gains' accrue to the incumbent in the form of cash when finally the asset value falls to zero and all capitalized wealth (asset value) is paid out.

Ignoring this logic—on which asset revaluations offer owners a re-scheduling of tariff receipts but no NPV windfall—regulators may argue that if service providers are to lose stranded (all non-optimal) assets off their regulatory asset bases without compensation, then they should equally be rewarded when the replacement

costs of their optimized assets increase.[15] On this model, asset owners face an unpredictable tariff stream. Indeed, investors unready to take on the risk of asset redundancies and subsequent NPV write-offs as a result of technological advances (or general reductions in replacement costs) will prefer DAC over DORC (King, 1997, pp. 16–17; 2001b, pp. 7–8).

King (1997, pp. 15–17) and Small (2000, pp. 1–2) note the unpredictability (volatility) of tariffs as a deficiency of DORC in regard to encouraging new investment. Added volatility increases the value of the 'option to wait' (McDonald and Siegal, 1986) and thus, all else equal, slows the rate of new investment:

> [V]ariations in the cost of replacement over time will feed into the permitted earnings of a regulated firm . . . the volatility effect of replacement cost valuations will generally delay investment in new assets . . . The value of the option to delay investment is increasing in the volatility of earnings, with the result that in any given time period the firm is less likely to invest, *ceteris paribus*. (Small, 2000, p. 2)

The intuition underlying this options argument is as follows. Once an apparently acceptable investment has been identified, the firm must decide whether to invest immediately or wait. The cost of waiting is the immediate net cash inflows foregone,[16] but the benefit is the extra information arising while waiting and thus a better based (more likely correct) decision. In theory, investment should occur only when the expected benefits from waiting are exceeded by the expected cash flows foregone (both measured in PV terms). The greater the volatility of earnings, the greater the expected (average) benefits from waiting, and thus the slower the rate of investment. From this perspective, asset owners should be wary of DORC. It adds to the risk of their investments and causes them to forego cash (returns on capital) while waiting for successful investments to reveal themselves as sufficiently certain.

More realistically, perhaps, the attraction to service providers of DORC is that once an investment is made (any waiting is over), revaluations are more likely than write-offs, and will presumably be allowed by regulators as NPV windfalls rather than regarded as income. For most energy infrastructure assets, the threat of technological redundancy (falling ORC) is negligible, and the economic rents from investment are limited only by the service provider's ability to convince regulators of the need for DORC revaluations. This is consistent with the allegation common among asset users and acknowledged by regulators that infrastructure

[15] Like revaluations, the regulatory treatment of stranded assets is not certain. ORG (1999, p. 19) noted that much of the risk of asset stranding is not within owners' control, and rather than making the regulated entity bear such 'market risks', asset strandings should be pre-empted with discretionary depreciation write-downs returning asset value to the owner before it disappears. If combined with the possibility of revaluations not treated as income, this ORG philosophy would mean that DORC is in fact 'DORC with an option on DAC', or put another way, 'DORC, or your money back', and thus presents the best of all worlds to asset owners.

[16] More precisely, the cost of waiting is the dollar return *on* capital foregone. This is the only opportunity cost of not investing immediately. The return *of* capital component is not an opportunity cost as it merely reimburses the owner for the period depreciation (loss of asset value) that occurs after an investment is made.

owners prefer DORC (rather than DAC) for the very reason that it allows them to take advantage of information asymmetries:

> [E]xperience has shown the network service provider's preference for the use of DORC valuation, in that the method produces the highest feasible asset values, and creates a significant information asymmetry in favour of the network owner. As information asymmetry is one of the biggest problems for the regulator (and interested parties) this cedes a significant advantage to the network owner, which it hopes can be translated into rents. (Energy Markets Reform Forum, 2000, pp. 24–5)

In its final determination on access arrangements for AGLGN, IPART (2000, p. 7) noted the consistent concerns of asset users over the non-disclosure by AGLGN of desired information. For reasons such as the scale and technical complexities of their networks, and their privileged access to proprietary data, asset owners much more understand the replacement costs and non-optimalities of their assets than either users or regulators, and are therefore in a strong position to exploit the subjectivity and potential for periodic asset revaluation inherent in DORC (King, 1997, p. 16). Asset users have complained that the financial incentives regarding regulatory reviews are biased in favour of infrastructure owners who have vastly more to gain than any individual user has to lose, and who are reimbursed for their expenditures on review negotiations as part of the tariff formula:

> Any review process, extending over 18 months, necessarily involves the commitment of substantial resources, both financial and human, by the regulator, the access applicant and other stakeholders, especially customers. Apart from the legal, economic and financial complexities of [access applications], users are particularly disadvantaged by a lack of resources to enable effective participation in extended reviews of such nature. The access arrangement applicant has obvious financial incentives to seek favourable outcomes. In any case, the costs incurred are paid for by users of the network, as the regulator allocates such costs to the regulated revenues. In the AGLGN case, its access arrangement information indicates costs for 'regulatory relationships' of $1 million. (Energy Markets Reform Forum, 2000, p. 11)

These disparities tip the outcomes of regulatory disputes in favour of owners (including governments intent on further infrastructure privatizations) against users and regulators alike.[17] Given that owners have these inherent advantages, it is perhaps little wonder that they generally prefer DORC over the more familiar but much less pliable DAC. This is, of course, hardly the kind of advantage that regulators, who have statutory obligations to energy users and downstream consumers, are wont to encourage.

Treatment of Easements

Easements are the legal rights under which infrastructure owners are permitted to build their networks across land owned by other parties. The DORC doctrine, advocated and adhered to most religiously by the ACCC and ORG, treats existing easements and other non-system assets (e.g. buildings) like any other asset.

[17] Davis (1999a, p. 16, 1999b) observed that the ORG/ACCC negotiations over WACC have been similarly lopsided in asset owners' favour.

Again this is for reasons of economic principle, namely the principle of ensuring that the RAB equates to whatever total costs a new entrant would currently incur to replicate the existing network: 'The normal DORC methodology would assign values to such assets reflective of their market value . . . The advantage of this approach is that the valuation remains comparable to costs faced by a potential entrant' (ACCC, 1999a, pp. 45–6).

Easements present the *reductio ad absurdum* of DORC. For the most part, they have been obtained historically by existing asset owners, with the authority of government legislation, at zero or low cost. And yet having acquired these 'access corridors' for generally little or no outlay, asset owners are now to be paid a return on their current 'market values' (however determined)[18] as if they were purchased today at today's prices. The DORC valuation of easements, more than any other asset, shows up the readiness of regulators to allow asset owners returns on investments that were never made. By insisting on the theoretical necessity for DORC, regulators find themselves bound to provide asset owners a conspicuous 'free lunch'. Moreover, this is not only a free lunch but also a long lunch, since the ACCC (1999a, p. 45) maintains that easements do not depreciate like other assets and hence will remain on the regulatory balance sheet in perpetuity.

Clearly less committed ideologically to DORC than the ACCC and ORG, IPART (e.g., 1999, pp. 51–2; 2000, p. 91) in New South Wales has decided that unlike, other assets, DORC does not apply to easements.[19] Its determination is to include easements in RAB at their actual costs, often zero. The rationale provided for this decision is revealing. Rather than conceding that there is any general absurdity about DORC-based tariffs for existing assets, IPART distinguished easements from other assets on the basis that they will never be replaced and hence will never present asset owners with any additional cost: 'For the incumbent, existing easements formerly acquired will not need to be replaced. Hence, such costs will not form part of the forward looking costs of maintaining and replacing existing capacity' (IPART, 1999d, Vol. 1, p. 60).

The first problem with this renouncement is that much of the physical infrastructure asset base is virtually permanent, requiring only maintenance rather than replacement, and should for consistency be valued the same way, or at least in equal recognition of its negligible (in PV terms) future cost of replacement. And second, the supposed economic rationale for DORC is not about 'the forward

[18] Small (2000, pp. 7–8) observes that market valuation of easements is an intractable problem for reasons such as the uncertain connection between the value of land (ownership) and the value of a limited right to use land conferred by an easement. Moreover, there is a logical circularity between the value (presence) of the easement and the value of surrounding land. For example, easements associated with Sydney Airport are over land made much more valuable by the presence of the airport (and its related easements).

[19] Of all the Australian regulators, IPART has produced the most balanced and well reasoned discussions on DORC, and is clearly aware of DORC's theoretical and practical deficiencies. Perhaps to signal empathy with those critical of its implementation of DORC, especially in regard to AGLGN and its large sunk asset base, IPART (1998, p. 35) pledged explicitly that it retained no necessary commitment to DORC as the regulatory asset base.

looking costs of maintaining and replacing existing capacity'. Maintenance expenses will be returned through the tariff formula, and capital expenditures are financed by capital markets which exist for this very reason. This latter point has been emphasized by King (1997, p. 6, 2000b) and Whittington (1998a, p. 96) in response to suggestions that infrastructure asset valuation should provide for physical capital maintenance in some sense. It is likewise accepted and restated by IPART (1999d, Vol. 1, p. 96), adding to the impression of the regulator clutching at straws, in its reference to easements causing no future capital replacement cost as the basis for their not being included at DORC:

In another of its determinations IPART again included easements at actual cost, albeit with a different purported rationale: 'To include a market value for easements in the initial asset base would be of no economic benefit... The restrictive nature of easements (i.e., being an easement for electricity distribution lines only) may mean that they have no value to any other entity' (1999, p. 52). This alternative explanation is similarly *ad hoc* and unrelated to the DORC-inclined theoretical framework meant to underlie regulatory asset valuation. The fact that easements have little or no realizable value does not mean that they have low replacement cost. Rather, their replacement cost would seem to be one of the largest deterrents facing any new entrant attempting system bypass.

It would seem that by advocating DORC on grounds of general economic principle, regulators find themselves painted into a corner when it comes to valuing easements. The supposed theoretical basis for DORC is that it captures the cost of a new entrant or system replication. If this oft repeated argument is to be taken seriously, it cannot be opportunistically set aside for certain assets where its consequences are most obviously open to ridicule. Moreover, if the truly apt economic principle is to set capital costs at the highest level short of those achievable by a new entrant, then DORC must necessarily include the price that a new entrant would pay for all necessary easements. This is clearly acknowledged by the Queensland Competition Authority (2001, p. 142):

> A new entrant is typically defined as a business installing a new gas reticulation network in an existing area where there is no existing network owned by the new entrant. In this situation there are no existing easements, pipelines, network layouts and so on. Costs incurred would therefore include all project management, design, easement, construction and restoration costs.

Qualifying these remarks, the QCA (2001, p. 151) restated the IPART observation that easements would never need replacement, and conceded that inclusion of easements in the RAB on some current replacement cost basis would increase tariffs significantly. The Authority's decision upon such contradictory indications was to expressly defer any pronouncement on easement valuation, averting the issue with the observation that '[t]he appropriate valuation method for easements is currently the subject of much discussion Australia-wide, especially in electricity'. That regulators insist on one hand that they have developed an appropriate and coherent economic logic for regulatory asset valuation—namely DORC—while at the same time expressly awaiting discovery of the particular

single all-appropriate valuation rule for easements, is of itself indicative of the general intellectual pretence and fragility of their pronouncements on asset valuation.

The ACCC, defeated by the competing (mutually exclusive) objectives of adhering rigorously to their own professed DORC new-entrant-exclusion doctrine while at the same time avoiding politically unforgivable 'tariff shock', came to similarly vacillatory determinations on easements. The essence of the ACCC proposal on DORC is that easements be carried in RAB at actual cost modified in some nondescript way over time 'in line with' DORC:

> Given the strong link with real estate values there is a likelihood that the value of easements will escalate continuously over time ... The question is how to introduce such assets into the regulatory framework in a consistent way. One consistent approach would require: [t]he contribution to the RAB be based on the actual cost to the TNSP [service provider] of obtaining the easement rights updated periodically in line with what would be the DORC based valuation of easements. (ACCC, 1999a, p. 45)

Apart from being virtually incomprehensible, this proposed valuation rule is revealing for its unexplained rejection of DORC and recourse to actual cost. The problem not acknowledged is that inclusion of easements at DORC would typically, particularly if easement values are equated with neighbouring land values, lead to a 50 per cent or greater increase in RAB, and thus in transmission tariffs (Weickhardt, 1999, pp. 2–3). IPART (personal communication, 2001) has found cases in its jurisdiction where the RAB would approximately double with easements included at estimated (grossly subjective) replacement cost. In one case of a potential 70 per cent increase in RAB (and consequent tariff increase of 25–30 per cent), its openly stated view is that such material tariff shock is 'unacceptable' (IPART, 1999d, Vol. 1, p. 60).

That the ACCC holds rigidly to DORC as a point of economic principle, yet does not implement it for all assets when the resulting tariffs are 'too high', invites intellectual scepticism. It is difficult to avoid the inference that the entire DORC opus owes its existence to the broad (albeit not fail-proof) political acceptability of its answers, rather than to the veracity of its theory. Another telling aspect of the ACCC's confusion in regard to easements is the suggestion that revaluations taking place over time in easement book values should be treated as income in the way described by the modified tariff formula (5) above (derived on the basis of NPV = 0). More astonishingly, it is suggested that this is true of other assets as well:

> To the extent that easement valuations are judged to vary over time, the variations in value should be reflected in depreciation allowances linked with the asset in precisely the same way as other assets. If the easement appreciates in value over time then the allocated depreciation would be negative in nominal terms and serve to offset the higher capital returns associated with an appreciating asset. (ACCC, 1999a, p. 46)

The proposition here is that all asset revaluations be regarded as income; that is, subtracted from the cash tariffs received by the service provider in the period of the revaluation. This would make sense if the ACCC decided to invoke the 'no free lunches' principle, as would be consistent with its new-entrant-exclusion logic. However, no such intention is evident in other ACCC statements on asset revaluations. The appearance of such a glaring inconsistency is indicative of the

contortions forced on the ACCC by its willing but not ready application of DORC to easements.

CONCLUSION

Provided that infrastructure assets are valued at NRV or higher, they will remain in use and not be scrapped. And provided the regulatory asset base is no higher than DORC, defined correctly as the new-entrant-exclusion limit, there is no theoretical (let alone realistic) chance of needless system duplication. Within these conceptual limits, NRV $\leq$ RAB $\leq$ DORC, the regulatory asset base is open to negotiation and political influence. In Australia, regulators have settled on the upper end of the 'realizable value to bypass value' (NRV to DORC) feasible range, opting for DORC and effectively underwriting the financial performance of asset owners (new and existing) including governments.

Abstractions invoked by regulators to support this position verge on the surreal. In particular, downstream industry and other consumers are told that tariffs must be so high because assets that will be maintained and possibly extended but never replaced would cost a great deal to replace. If this economic wisdom is not appreciated, then another rationalization favoured by regulators is that access charges for sunk assets, operating well below full capacity and at very low incremental costs, will have to be increased when eventually existing assets are replaced, and hence should be set high now so as not to increase later. Asset users maintain that in their reality, preference would be for somewhat lower tariffs now, on which to build businesses that can afford higher tariffs ('tariff shock') when they are much later (never) necessary.[20]

The theoretical and practical absurdity of the above propositions is apparent to those without contrary economic or political interests, but has caused regulators little embarrassment. Their only notable discomfort has arisen unexpectedly in applying DORC to non-system assets, particularly easements, which were to begin with largely overlooked (probably because they were mostly not included in their owners' pre-existing historical cost financial statements). No potential new entrant in energy transmission can exist without easements, but when DORC is applied to these, in strict accord with the regulators' new-entrant-exclusion logic, the balance sheets of the service providers become more akin to those of property developers. In some cases the DORC of easements exceeds that of system assets. This is all the more anomalous for the fact that easements were generally

[20] 'The proposition "pay more now so you are familiar with paying more later" has little appeal with end users. To start with, they are not sure they will be in business in the future, so they may not be around to see the price shock ... The other point is that natural gas pipelines have never been replaced in Australia. Natural gas has been around for 30 years and unlike the old towns gas, is non-corrosive. Modern cathodic protection has all but eliminated corrosion, as has the use of plastic pipe for low pressure service. Wholesale replacement will not happen—gradual replacement over decades mostly to upgrade capacity or replace old towns gas pipes means that the asset base will never reach zero followed by a price shock. The U.S. experience bears this out. There utilities build rate base mostly through expansion or extensions to offset depreciation.' (B. Henson, personal communication, 13 October 1999)

acquired by the service providers at zero or low cost under statutory powers. If included at DORC, easements would become a singularly rich source of economic rents to their owners, in perpetuity.

Of greater potential concern to regulators wedded to DORC is a corrected account of their own economic logic, implicit in work by Agility Management (2000) and King (2001a) and reformulated by way of equations (6)–(10) above. These equations describe a dynamic theory of regulatory asset valuation and depreciation based on replacement cost. The basis of this theory is the principle—widely advocated by Australian regulators—that the regulatory asset base RAB_t should be set and held at all times t (i.e., continually re-set) at the uppermost level short of that admitting asset duplication. Logically, this upper limit on RAB_t is a function of the replacement cost of all new assets, ORC_t. Its value, $DORC_t$, is defined for all times t and therefore, unlike current regulatory practice, requires no exogenous depreciation scheme. To date, regulators have depreciated ORC using the 'real linear' (straight line) algorithm, which has the appealing corollary that tariffs are fairly constant in real terms. However, apart from this incidental attraction, real linear depreciation is essentially arbitrary (diminishing balance or other patterns could equally apply) and thus without theoretical justification.

The new-entrant-exclusion logic underpinning $DORC_t$ (dynamic DORC) embodies the free market ethos advocated by Australian regulators, particularly the ACCC. Its practical consequences, however, in terms of the initial RAB value (and subsequent tariff levels) applicable to sunk assets are generally much less agreeable. In particular, sunk assets with long remaining lives typically have an initial DORC near 100 per cent ORC. As a consequence, service providers with dated but very long-lived assets will earn practically the same tariffs as if their infrastructure was entirely new and built at today's prices. Such lastingly high DORC values are prone to be well outside the bounds of political sustainability. They will be perceived on superficial analysis as making no allowance for the fact that assets are 'used' rather than brand new, much like a back street car rental firm with ten-year-old vehicles asking for the same tariffs as Hertz and Avis.

Thus far, regulators employing replacement cost asset valuation have avoided this 'anomaly' by essentially arbitrary or at least highly subjective write-offs in their settings of the initial DORC (e.g., $DORC_0 = 65\%\ ORC_0$). The regulators own economic logic, reconstructed in this article, precludes such subjective and possibly political inspired starting points, and produces its own initial DORC figures characteristically not much less than ORC (i.e., $DORC_0 \approx ORC_0$). Notwithstanding their logical coherence (internal consistency) and thus theoretical appeal, such high initial DORC figures will alter political perceptions of the benefits of replacement-cost-based regulatory asset valuation, and severely test Australian regulators' ideological commitment to DORC.

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'Shopping Around' for Accounting Practices: The Financial Statement Presentation of French Groups

This article illustrates the progressive move away from traditional accounting practices through a study of the presentation of financial statements. Based on a sample of one hundred large French industrial and commercial groups over a ten-year period, and applying a logistic regression method, our survey confirms a trend among French companies, which are increasingly turning their backs on traditional national practices as regards the balance sheet format, the income statement format, the voluntary disclosure of a statement of changes in shareholders' equity and the cash flow statement format. This move towards 'alternative' practices is made possible by the flexibility of French regulation, and can probably be explained by the desire of French firms to attract more investment on international capital markets. However, this trend shows no signs of a clear orientation towards any particular accounting model (IAS, U.S. or U.K.). The behaviour of the French firms observed in our study can be considered as a kind of 'shopping around' for accounting practices.

Key words: Financial statements; Harmonization; IASB; Standardization.

The last twenty years have seen rapid development in the international financial markets. An increasing number of companies have sought listing abroad in order to raise capital. Transnational mergers and acquisitions are becoming more frequent and larger in scale. Institutional investors are more powerful and seek transparency in information disclosure by listed companies.

The direct impact of these developments on accounting is that increasingly, the products of accounting in one country are used in various other countries (Nobes and Parker, 2002, p. 73) and this is why the pressure for international accounting harmonization is constantly increasing. However, not every country plays an equal role in this harmonization process. Individuals and agencies in the U.S. and U.K. have long exerted influence over the practices of companies in many

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countries. Additionally, the importance of the International Accounting Standards Committee (IASC, now IASB) has grown over the past ten years.

In this context, it is logical to expect that large Asian and Continental European companies would increasingly adopt certain accounting practices of international (IASC) or Anglo-American origin, in order to compete with their American and British counterparts on international capital markets.

This study examines one aspect of accounting methods—the financial statement presentation. Using large French industrial and commercial groups as examples, we try to determine whether there have been any changes in their financial statement presentation over ten years (1989–98). We develop a model that can be used to show that large French groups 'shop around' for what we call 'alternative' practices (i.e., alternative to the French tradition).

LITERATURE REVIEW

International Accounting Differences

One major task of international accounting research is to understand and classify the differences between accounting systems in various countries. Various research efforts identify a dichotomy in accounting systems around the world: the Anglo-American model versus the Continental European model. In their research, Salter and Doupnik (1992) conclude that this dichotomy in accounting systems is consistent with the Common law/Romano-Germanic dichotomy in legal systems. In the literature, France is generally depicted as a key representative of the Continental accounting model. More recently, Ball *et al.* (2000) show that common-law accounting income exhibits different characteristics from code-law accounting income.

Major differences exist between these two accounting models, both in accounting valuation and presentation methods. Most researchers examining international accounting harmonization are interested in accounting valuation methods. Van der Tas (1988) analyses the accounting treatments for deferred tax, investment tax credit, and land and buildings valuation. Brunovs and Kirsch (1991) compare goodwill recognition, measurement, amortization, reassessment and disclosure among six English-speaking countries. Pope and Rees (1992) examine the information content of accounting earnings measures. Using the case study approach, Walton (1992) considers accounting measurement differences between France and Britain, with particular reference to long-term contracts. Norton (1995) undertakes a comparative analysis of the level of conservatism in U.S. and Australian accounting practice. Barth and Clinch (1996) investigate goodwill, asset revaluations, income taxes, pensions, interest capitalization, foreign currency and extractive industries accounting. By developing a statistical model of international accounting harmonization, Archer *et al.* (1996) compare deferred taxation and goodwill practices in eight European countries, while an article by Street and Bryant (2000) examines the extent to which the disclosure requirements of the IASC have been complied with or have been exceeded by companies claiming to use International Accounting Standards.

However, to the best of our knowledge, none of these works analyses the presentation of financial statements. Hence our consideration of the principal components of financial statement presentation and the main divergences between countries.

International Accounting Harmonization

The introduction explains that harmonizing national accounting systems has become a necessity. Among other indicators, a survey by Choi and Levich (1991) of institutional investors, corporate issuers, investment underwriters and market regulators in Germany, Japan, Switzerland, the U.K. and the U.S. concluded that the comparability of financial statements is important to investors.

Recently international accounting harmonization has achieved prominence by two major events:

1. The decision in May 2000 by the International Organization of Securities Commissions (IOSCO) to endorse the International Accounting Standards (IASs), while still allowing individual regulators to require certain supplementary treatments (Enevoldsen, 2000).
2. The communication issued by the European Commission (13 June 2000) of a proposal requiring all listed EU companies to prepare their consolidated financial statements in accordance with International Accounting Standards from 2005 onwards at the latest. This communication was followed by a proposal for a regulation in February 2001 that would include the same requirement. To attain its objective, the EU will form an Accounting Regulatory Committee that will decide whether to endorse IAS on the basis of Commission proposals and has founded a European Financial Reporting Advisory Group (EFRAG) to provide technical expertize on the subject. Furthermore, the existing Accounting Directives are to be modernized in the course of 2001–02 (EU, 2000, 2001).

Predominance of the Anglo-American Accounting Model

Several authors posit the influence of the U.S., the U.K. and/or the IASC. For example, Ball *et al.* (2000) argue that 'the properties of accounting information prepared under common-law accounting standards are of particular contemporary interest because the ... IASC recently completed a set of "international" accounting standards widely viewed as reflecting a largely common-law approach of transparent, timely disclosure'. Nobes (1998) also affirms that a high degree of correlation exists between equity-outsider financing systems and common-law countries, and between credit-insider systems and codified law.

According to Walton (1996, p. 113), international accounting practice in large enterprises will certainly follow Anglo-American experiences, because these enterprises need accounting methods suitable for satisfying their financial markets. Bernheim (2000) shares this view. He states that neither the U.S. nor the U.K. requires an internationally harmonized accounting reference, since their enterprises have no need to be listed on foreign markets given that their own domestic markets are the most active in the world. Conversely, an internationally

harmonized accounting reference is necessary for Continental European and Asian countries. The above-mentioned measures taken by the EU clearly follow this reasoning.

However, the very idea of Anglo-Saxon or Anglo-American accounting is debated nowadays, for example in Alexander and Archer (2000). The Anglo-American model is not uniform; there are several differences in the financial statement presentation rules if we compare, for instance, international, U.S. and U.K. standards.

RESEARCH METHOD

Research Hypothesis

In France, with the increase in cross-border listing and the growing number of Anglo-American institutional investors on the Bourse de Paris, we expect to find a certain trend towards 'internationalization' in the financial statement presentation of large groups. In the first eight months of 1999, foreign investment in French stocks and bonds totalled $71.7 billion, more than in all of 1998. Among the top forty companies on the Paris stock exchange, an average stake of 35 per cent is now held by American and British institutional investors and pension funds (Tagliabue, 2000).

Because of the lack of uniformity within the Anglo-American accounting model, it is tempting for large French groups to adopt the standard which seems the most appropriate, depending on which aspect of presentation is concerned. Hence, the general hypothesis of: large French groups are increasingly likely to move away from traditional French practices in their financial statement presentation, and likely to 'shop around' to select alternative practices originating from international, U.S. or U.K. standards. This general hypothesis is divided into nine hypotheses, each of which will be examined in the next section.

Of interest are the changes in financial statement presentation by French groups over a recent ten-year period, concentrating mainly on their consolidated financial statements. Because no distinction is made between financial reporting and fiscal reporting in France, individual French companies' financial statements are largely influenced by taxation considerations. Conversely, because the tax factor is non-existent in consolidated financial statements (no income tax is paid on the basis of the consolidated income), French standard-setting bodies allow more flexibility in presentation and valuation for group accounts. Consequently, French groups are entitled to choose alternative practices for their consolidation, and these alternatives may be similar to international, U.S., U.K. or even Nordic practices. Furthermore, as Tay and Parker noted (1990), if harmonization activities are the result of concern about the comparability of accounts produced by companies from different countries, then studies should focus on actual reporting practices rather than on regulations, that is, on *de facto* rather than *de jure* harmonization, a view shared by van der Tas (1992).

Our research is based on the 'Methodology for consolidated accounts' (Anon., 1986), the common standard during the surveyed period. However, the new regulation

(Anon., 1999a), which is applicable to financial statements published from 2000, will also be discussed, in order to show the development in French regulation.

Sample and Data

The sample of large French groups used in this study, and the related data, were obtained from a survey carried out annually since 1986 by a group of leading French accounting firms (Anon., since 1986). This survey compiles financial information published in annual reports by the hundred largest French industrial and commercial groups. The period surveyed is 1989–98, the required data being unavailable before 1989.

The sample was selected mainly by following the criterion of consolidated sales from the list published by the French business press. Some adjustments have been made, to include groups with high value added and exclude state-owned enterprises and non-listed companies. Only industrial, commercial and service sectors are included in the survey; banks and insurance companies were rejected.

The composition of the sample remains relatively stable from year to year. However, each year requires certain modifications because of changes in performance, mergers and acquisitions, and privatization operations (see Appendix for a list of the companies included in the 1999 sample, based on 1998 annual reports).

Statistical Design

The statistical analysis, using a logistic regression method, will be presented in more detail along with the results.

HYPOTHESES

In order to confirm (or refute) the general hypothesis, it was divided it into nine hypotheses related to (a) the presentation order of financial statements, (b) the content of financial statements, (c) the number of accounting years presented, (d) the balance sheet and (e) income statement presentations.

Presentation Order of Financial Statements

Because of historical differences in the utility of accounting information, each country attributes varying degrees of importance to each particular financial statement. Between the Continental and Anglo-American accounting systems there is a substantially different understanding of the accounting function.

The Continental view is that the basic function of accounting is to provide evidence that a firm has complied with judicial requirements, and satisfied the various demands of tax authorities, macro-administration bodies, investors, creditors, employees, etc. The European Union takes this view, and has therefore included accounting regulation in its company law harmonization process.

In Anglo-American countries, however, the purpose of the accounting function is seen more as the disclosure of economic information concerning an enterprise, under circumstances where, in most cases, financial ownership and operational management are separate. Accounting information is essentially an 'answer sheet' handed over by the operator of the enterprise (manager) to the owner(s) of the enterprise (shareholders). In this situation, shareholders take priority in the

accounting objectives. For example, in the Framework for the Preparation and Presentation of Financial Statements dated 1989, the IASC indicates that 'as investors are providers of risk capital to the enterprise, the provision of financial statements that meet their needs will also meet most of the needs of other users that financial statements can satisfy' (IASC, 2001, § 10).

This divergence in the objectives of financial statements is visible in differences in the order that accounting information is presented. The first item presented may well be the balance sheet. As explained by Boussard and Colasse (1992), 'French financial accounting is strongly marked by the concept of ownership. As a consequence, its main compulsory output has for a long time been the balance sheet'. This is why, historically, French companies have always tended to begin with their balance sheet. Another option is to provide the income statement first. In doing so, the firm is indicating that the most important information it wants to show its shareholders is its performance during the accounting year. According to many, including Basu (1997), in the U.S., financial accounting since the mid-1930s has placed more emphasis on the income statement. Moreover, U.K. and Nordic companies (especially in Sweden, Finland and Norway) often begin their presentation with the income statement. Thus, hypothesis 1:

H1: An increasing number of large French groups would no longer be expected to begin their financial statement presentation with the balance sheet (see Table 1).

Content of Financial Statements

According to IAS 1 (IASC, 1997, § 7):

> a complete set of financial statements includes the following components:
> (a) balance sheet;
> (b) income statement;
> (c) a statement showing either:
> - all changes in equity; or
> - changes in equity other than those arising from capital transactions with owners and distributions to owners;
> (d) cash flow statement; and
> (e) accounting policies and explanatory notes.

However, the 4th European Directive (EEC, 1978) specifies in article 2 that 'the annual accounts shall comprise the balance sheet, the profit and loss account

TABLE 1

PRESENTATION ORDER OF FINANCIAL STATEMENTS: DESCRIPTIVE DATA

First document presented	1990	1991	1992	1993	1994	1995	1996	1997
Income statement	26	28	33	32	38	39	45	49
Balance sheet	74	72	67	68	62	61	55	51
Total	100	100	100	100	100	100	100	100

Data unavailable for 1989 and 1998.

and the notes on the accounts'. The rule remains unchanged in the 7th Directive (EEC, 1983, art. 16, § 1).

In practice, almost all countries, European Union members and non-members alike, require at least a balance sheet, profit and loss account, and notes on the accounts. To ensure that investors, accounting information users and shareholders are well informed about the financial position of a business, many countries add a cash flow statement and/or a statement of changes in shareholders' equity to the required reporting package.

Statement of Cash Flows In the U.S., from 1971, in addition to the traditional balance sheet and income statement, the Accounting Principles Board (APB) required U.S. firms to publish the statement of changes in financial position (APB Opinion No. 19). The statement of cash flows (SFAS 95) replaced this statement in 1987 (FASB, 1987). As mentioned above, this statement is required by IAS 1 (IASC, 1997) and described in IAS 7 (IASC, 1992). It is also required by FRS 1 in the U.K. and Ireland (ASB, 1991).

Conversely, under the French Code of Commerce, which has been influenced by the 4th European directive, the only two compulsory financial statements are the balance sheet and the income statement, which must always be accompanied by notes. Similarly, the 'Methodology for consolidated accounts' (Anon., 1986, referred to as the 'Methodology' hereafter) recommends, but does not require, the publication of a statement of changes in financial position or of cash flows. Neither a statement of changes in financial position nor a statement of cash flows is mandatory in France. Nevertheless, statistics show that almost all large French groups publish at least one of the two (99 per cent in 1998; see Table 2 below).

In its 1982 version (revised in 1999, see Anon., 1999b), the French General Accounting Plan proposed a model statement of changes in financial position. However, this model, which shows the change in working capital for individual company financial statements, is optional. The French professional accounting organization (Ordre des experts comptables [OEC], 1997) proposed an optional

TABLE 2

STATEMENT OF CASH FLOWS OR OF CHANGES IN FINANCIAL POSITION: DESCRIPTIVE DATA

Statement published	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Statement of cash flows	19	25	30	38	45	50	50	65	71	78
Statement of changes in financial position	65	62	56	48	46	41	40	32	29	21
Both	0	0	0	2	1	2	2	1	0	0
Neither	16	13	14	12	8	7	8	2	0	1
Total	100	100	100	100	100	100	100	100	100	100

TABLE 3

PUBLICATION OF A STATEMENT OF CASH FLOWS: DESCRIPTIVE DATA

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Statement of cash flows	19	25	30	40	46	52	52	66	71	78
No statement of cash flows	81	75	70	60	54	48	48	34	29	22
Total	100	100	100	100	100	100	100	100	100	100

statement of cash flows similar to the U.S. (SFAS 95) and international (IAS 7) models. In consolidated financial statements, the 'Methodology' (Anon., 1986, No. 33) allows groups free choice of model; however, adopting the model suggested for individual company statements is recommended.

The major question, then, remains the choice of a model. As Colasse states (2000, p. 334), the statement of changes in financial position and the statement of cash flows have different purposes. The statement of changes in financial position is a transitional table between two balance sheets and aims to explain under what conditions the firm was able to maintain its financial structure. The statement of cash flows, on the other hand, emphasizes changes in cash and is designed to allow users to evaluate future cash flows. Hypothesis 2 is:

H2: An increasing number of large French groups are likely to abandon the statement of changes in financial position, preferring instead to publish a statement of cash flows.

The number of groups that have published a statement of cash flows over the last ten years is shown in Table 3.

Starting with financial statements for 2000, the French regulation regarding consolidated accounts (Anon., 1999a, referred to as the 'Regulation' hereafter) now requires publication of a statement of cash flows.

Statement of Changes in Shareholders' Equity According to IAS 1 (IASC, 1997, § 86):

> an enterprise should present, as a separate component of its financial statements, a statement showing:
> (a) the net profit or loss for the period;
> (b) each item of income and expense, gain or loss which, as required by other Standards, is recognized directly in equity, and the total of these items (such as revaluation surpluses and certain foreign exchange differences); and
> (c) the cumulative effect of changes in accounting policy and the correction of fundamental errors dealt with under the Benchmark treatment in IAS 8.

As explained earlier, although this statement is not required in France because neither the 4th nor the 7th Directives mention it, the 'Methodology' (Anon., 1986, No. 30) recommends its inclusion. A study of the reporting practices of large

TABLE 4

STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY: DESCRIPTIVE DATA

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Statement published separately	31	32	33	38	40	34	36	42	45	46
Statement included in notes	69	68	67	62	60	66	64	58	55	54
Total	100	100	100	100	100	100	100	100	100	100

French companies shows that all of them publish this statement, either as a separate financial statement or in the notes.

The remaining question is where the statement should be located: separately or as part of the notes. Historically, because this document was not considered of major importance in France, it was generally published in the notes. This leads us to hypothesis 3:

H3: An increasing number of large French groups are choosing to disclose the statement of changes in shareholders' equity as a separate financial statement.

The change over the ten-year period studied, according to our survey, is shown in Table 4. In contrast to the IAS 1 prescription mentioned above, the 'Regulation' (Anon., 1999a, § 424) requires publication of a statement of changes in equity, to be included in the notes.

Notes to the Financial Statements Another interesting point is the varying degrees of importance attributed to the notes to financial statements. On Continental Europe, the requirements for balance sheets and income statements are often defined by national accounting standards. Every principal statement contains detailed information, which naturally reduces the extent of the notes. Traditionally, French companies presented very detailed financial statements with few or no accompanying notes.

Influenced by their common law system, which relies on a limited number of statutes supplemented by large numbers of case precedents, Anglo-American firms tend to publish relatively simple balance sheets and income statements, with more detailed (U.S. practice) or indexed (U.K. and Nordic countries practice) notes.

However, the essential importance of notes in financial statements is now recognized by most Continental countries and these Anglo-American practices are becoming widespread in France, following implementation of the 4th and 7th European Directives (EEC, 1978 and 1983).

In seeking to identify any trend towards attribution of more importance to the notes, we have concentrated on the indexing of notes, since the degree of detail is a subjective item and would require another separate survey. Hypothesis 4 thus follows:

TABLE 5

DETAILED NOTES TO THE FINANCIAL STATEMENTS: DESCRIPTIVE DATA

	1989	1990	1991	1993	1994	1995	1996	1997	1998
Indexed notes	50	54	57	59	73	77	85	84	85
Non-indexed notes	50	46	43	41	27	23	15	16	15
Total	100	100	100	100	100	100	100	100	100

Data unavailable for 1992.

H4: To complement their balance sheets and income statements, an increasing number of large French groups would be expected to adopt indexed notes (i.e., with numbered references to specific items in the financial statements).

The development of this practice over the ten-year period in question is shown in Table 5.

Number of Periods for Which Figures Are Disclosed

The number of fiscal years reported in financial statements is also a point of divergence in international accounting. Following the requirements of the SEC, American companies usually disclose three years' figures for the income statement, two years for the balance sheet and three years for the statement of cash flows. However, IAS 1 (IASC, 1997) requires only one comparative period for all financial statements, and this is also common practice among British and Continental European companies. In France, the Code of Commerce also recommends disclosure of one comparative period.

Hypotheses 5 and 6 concern the number of periods reported:

H5: In large French groups' balance sheets, inclusion of two comparative periods, rather than one, is expected to become more and more frequent.

H6: In large French groups' income statements, inclusion of two comparative periods, rather than one, is expected to become more and more frequent.

Table 6 shows the changes between 1990 and 1998.

Balance Sheet Presentation

There are several differences in balance sheet presentation, summarized in Figure 1.

Balance Sheet Format The first difference concerns the format. The balance sheet can be presented 'horizontally' (account form), with the two blocks side by side, or it can be presented 'vertically' (report form), with assets at the top. In some countries, the U.K. and Ireland for example, a 'multiple-step' format is used, with a list of subsets of the three main categories of assets, liabilities and shareholders' equity and identification of managerially useful subtotals by subtracting other relevant subcategories of assets or liabilities.

TABLE 6

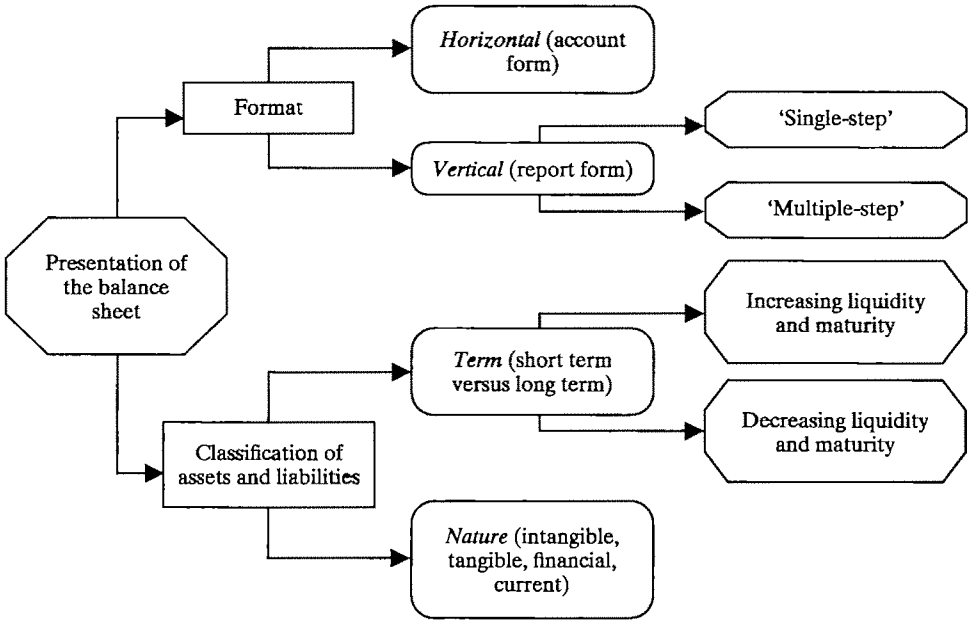
NUMBER OF YEARS PUBLISHED: DESCRIPTIVE DATA

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Balance sheet									
3 years	11	11	13	21	33	47	62	71	77
2 years	89	89	87	79	67	53	38	29	23
Income statement									
3 years	14	12	16	24	36	50	64	72	77
2 years	86	88	84	76	64	50	36	28	23

Data unavailable for 1989.

FIGURE 1

PRESENTATION OF THE BALANCE SHEET



According to Nobes and Parker (2002, p. 48): 'at its most obvious, the general use of a vertical format in the United Kingdom, rather than a horizontal format as in France or Spain, suggests a greater shareholder orientation in the United Kingdom. This is because, as noted above, the vertical format of the balance sheet allows the presentation of working capital and net worth, and it contrasts net worth with shareholders' funds.'

TABLE 7

BALANCE SHEET PRESENTATION: DESCRIPTIVE DATA FOR THE FORMAT OF THE STATEMENT

Balance sheet format	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Vertical format	0	0	0	0	0	0	0	0	0	0
Vertical format—multiple step	0	0	0	0	0	0	0	0	0	0
Horizontal format	100	100	100	100	100	100	100	100	100	100
Total	100	100	100	100	100	100	100	100	100	100

The French 'Methodology' (Anon., 1986, No. 30) does not require a specific model; it authorizes reporting in a vertical *or* horizontal balance sheet format. However, over the period surveyed, all the groups included in the study opted for the horizontal balance sheet format (see Table 7).

Under the new 'Regulation' (Anon., 1999a, § 400), the consolidated balance sheet should be presented horizontally. However, the vertical format is allowed provided it has been the format customarily used by the company.

Balance Sheet Classification The second difference relates to the classification of assets and liabilities. As shown in Figure 1, assets and liabilities can be classified in different ways, for example, according to the time horizon of their transformation into cash (short-term/long-term) or the nature of the asset (fixed/current, tangible/intangible).

French accounting gives priority to the judicial form (nature) of the items in the balance sheet. Consequently, for individual company financial statements the French General Accounting Plan recommends a balance sheet model in which all items are classified by their nature. However, given the dichotomization of individual company and consolidated group financial statements, French law authorizes classification by term for the consolidated financial statements.

IAS 1 (IASC, 1997, § 53–6) gives companies the choice of whether or not to separate short-term and long-term assets and liabilities in their balance sheets. However, in the U.S. and Canada all figures in the balance sheet are classified by term (long-term or short-term) and presented in order of decreasing liquidity and maturity. Companies in many other countries present their balance sheet figures in order of increasing liquidity and maturity.

Hypothesis 7 relates to the classification of items in the balance sheet:

H7: An increasing number of large French groups would be expected to move away from classification by nature, opting instead to classify assets and liabilities by term (see Table 8).

The new 'Regulation' (Anon., 1999a, § 400) recommends a model balance sheet that does not allow presentation by term. However, the distinction between short-term and long-term assets and liabilities must be disclosed in the notes.

TABLE 8

CLASSIFICATION OF ASSETS AND LIABILITIES: DESCRIPTIVE DATA

Type of classification	1993	1994	1995	1996	1997	1998
By term	26	25	28	35	35	46
By nature	74	75	72	65	65	54
Total	100	100	100	100	100	100

Data unavailable before 1993.

TABLE 9

PRESENTATION OF ASSETS: DESCRIPTIVE DATA

Assets presented in	1993	1994	1995	1996	1997	1998
One column	54	31	24	33	64	57
Three columns	46	69	76	67	36	43
Total	100	100	100	100	100	100

Data unavailable before 1993.

Presentation of Assets The last important format difference in financial statement presentation relates to the presentation of assets. In many countries, following IAS 1 (IASC, 1997), only the net value of assets is reported. While U.S. balance sheets present assets in one column, fixed assets can be shown in three lines as: gross value less accumulated depreciation equals net value. Traditionally, in a French balance sheet, asset items are presented in three columns: gross value, accumulated depreciation and valuation allowances, and net value (see 'Methodology': Anon., 1986, No. 30).

Hypothesis 8 concerns the presentation of balance sheet assets:

H8: An increasing number of large French groups would no longer be likely to present balance sheet assets in three columns.

The trend in the presentation of assets is shown in Table 9.

Income Statement Format

There are several possible formats for presenting an income statement. Although the horizontal format (expenses on the left and revenues on the right) is permitted in certain countries, including France, most companies use the vertical format for income statement presentation. The main difference lies in classification of expenses.

IAS 1 (IASC, 1997, §§ 77–85) states that 'expense items are sub-classified in order to highlight a range of components of financial performance, which may

differ in terms of stability, potential for gain or loss and predictability'. This information is provided in one of two ways: by nature or by function. The first method of sub-classification is referred to as *the nature of expense method.* Expenses are aggregated in the income statement according to their nature, for example, purchases of materials, transport costs, taxes other than income tax, salaries and social expenses, and depreciation. They are not allocated between the various functions of the enterprise. This is the traditional French method for individual company income statements.

The second method of sub-classification is referred to as *the function of expense* or *cost of sales method.* This method classifies expenses according to their function: they are considered as a component of the cost of goods sold—commercial, distribution or administrative activities, for example. The format by function, by allocating wages and depreciation to different stages of production, is useful in computation of gross profit for a manufacturing company. This is the format adopted in U.S. GAAP.

Some companies, mostly British, present a simplified income statement that is very similar to the single-step model. In such cases, it is difficult if not impossible to judge whether their income statements are classified by nature or by function.

The French 'Methodology' (Anon., 1986, No. 31) allows companies to choose between the nature-of-expense and function-of-expense models. However, for individual companies' financial statements, the presentation by nature is required. This explains why this format is the most traditionally used in France.

Hypothesis 9 relates to the presentation of the income statement:

H9: An increasing number of large French groups are likely to no longer be using the traditional format by nature, preferring a by-function or simplified income statement format.

The trend between 1989 and 1998 is shown in Table 10.

TABLE 10

CLASSIFICATION OF EXPENSES: DESCRIPTIVE DATA

Classification of expenses	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
By function	30	24	23	29	22	23	27	30	31	32
Short presentation	0	0	6	0	8	10	12	12	11	8
Sub-total (function or simplified)	*30*	*24*	*29*	*29*	*30*	*33*	*39*	*42*	*42*	*40*
By nature	70	64	56	60	59	56	51	44	42	40
By intermediate results	0	12	15	11	11	11	10	14	16	20
Sub-total (nature)	*70*	*76*	*71*	*71*	*70*	*67*	*61*	*58*	*58*	*60*
Total	100	100	100	100	100	100	100	100	100	100

TABLE 11

REFERENCES CHOSEN BY FRENCH GROUPS 'SHOPPING AROUND'

	Hypotheses	Standard or practice	Comments
H1	Income statement reported as the first document	Practice in U.K., U.S., and Nordic countries	
H2	Publication of a statement of cash flows	IASC (IAS 1, IAS 7), SFAS 95	Required as an integral part of financial statements
H3	Statement of changes in equity published as a financial statement	IASC (IAS 1)	Required as an integral part of financial statements
H4	Publication of indexed notes	Practice in U.K., U.S. and Nordic countries	Simplified balance sheet and income statement with indexed notes
H5	Balance sheet presented for 3 years	Practice	
H6	Income statement presented for 3 years	U.S. SEC	Common practice in the U.S.
H7	Balance sheet presented by term	IASC (option in IAS 1), U.S. rule	Practice in the U.S. and many other countries (U.K., Ireland)
H8	Balance sheet assets presented in one column	IASC (IAS 1)	Model given in IAS 1
H9	Income statement presented by function or in simplified format	IASC (option in IAS 1), U.S. rule, U.K. practice	Practice in the U.S. and U.K.

Summary of the Origins of the Hypotheses

Table 11 summarizes, for the nine hypotheses, the different standards or practices which have been adopted by French groups.

STATISTICAL ANALYSIS

The data used in the statistical analysis, taken from the tables above, are presented in Table 12. The general trend is calculated as an average of the available data for each year.

Figure 2 clearly shows the trends in the form of an 'S' curve (specifically for bs_3years and is_3years). Consequently, the simple regression method is not suitable for our statistical analysis, since it analyses trends on a straight-line basis. Besides, all of our data are of a proportional nature (between 0 and 100 per cent). For these two main reasons, we have opted for the logistic regression method in our statistical analysis. This method is presented *inter alios* in Hosmer and Lemeshow (1989).

Logistic regression is useful for predicting the presence or absence of a characteristic or outcome based on the values of a set of predictor variables. This study seeks to describe the changes in a proportion over a given period. We are interested in seeing whether changes in the formats used by large French groups to present their financial statements over a recent ten-year period confirm our

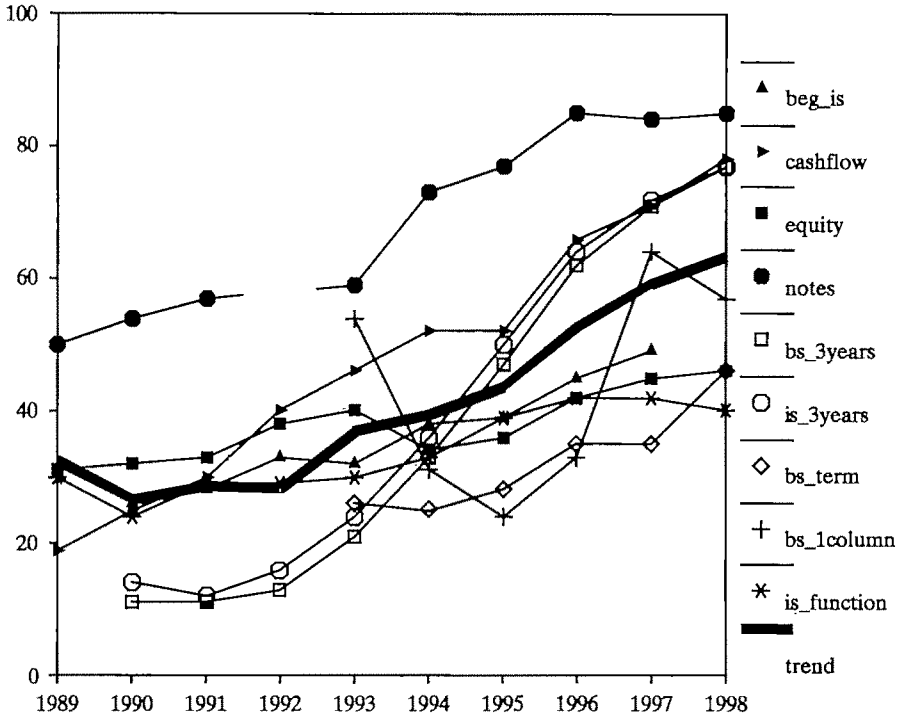
TABLE 12

PRESENTATION OF RELATED DATA

	Meaning of the hypothesis	Code	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
H1	Income statement as the first document	beg_is		26	28	33	32	38	39	45	49	
H2	Publication of a statement of cash flows	cashflow	19	25	30	40	46	52	52	66	71	78
H3	Statement of changes in equity published as a financial statement	equity	31	32	33	38	40	34	36	42	45	46
H4	Indexed notes	notes	50	54	57		59	73	77	85	84	85
H5	Balance sheet for 3 years	bs_3years		11	11	13	21	33	47	62	71	77
H6	Income statement for 3 years	is_3years		14	12	16	24	36	50	64	72	77
H7	Balance sheet presented by term	bs_term					26	25	28	35	35	46
H8	Balance sheet assets in one column	bs_1column					54	31	24	33	64	57
H9	Income statement by function or simplified	is_function	30	24	29	29	30	33	39	42	42	40
	General trend		32.5	26.6	28.6	28.2	36.9	39.4	43.6	52.7	59.2	63.3

FIGURE 2

GRAPHIC PRESENTATION OF EACH VARIABLE AND THE GENERAL TREND



predicted tendency towards internationalization. Therefore, the binary logistic regression model can be used for our statistical analysis.

We used the following model:

$$\textit{Proportion of companies showing a given characteristic at a given time } t = \frac{e^{a+bt}}{1+e^{a+bt}} \qquad (1)$$

This model fits the data well if the Hosmer and Lemeshow test is not significant (significance level of the chi-square statistic higher than 0.05). Coefficients a and b are estimated by maximum likelihood and are considered as different from zero if the Wald statistic ([coefficient/standard deviation of the coefficient]^2), which is equivalent to the square value of Student's t in the linear regression, has a significance level of less than 0.05 (Wald higher than 4).

Taking our first hypothesis (presentation order of financial statements) as an example, we show in Table 13 the results of the statistical analysis and a summary of the major figures.

The probability that the financial statements begin with the income statement is given by the following formula:

TABLE 13

STATISTICAL RESULTS FOR H1

Hosmer and Lemeshow Test

Step	χ^2	*df*	Sig.
1	.632	6	.996

Variables in the Equation

		B	S.E.	Wald	*df*	Sig.	Exp(B)
Step 1[a]	TIME	.141	.033	18.485	1	.000	1.152
	Constant	−1.215	.171	50.161	1	.000	.297

[a] Variable(s) entered on step 1: TIME.

$$\textit{Prob(Financial statements begin with Income statement at year t)} = \frac{e^{-1.215+0.141t}}{1+e^{-1.215+0.141t}}$$

For example, for $t = 1$, the probability is equal to

$$\frac{e^{-1.215+0.141t}}{1+e^{-1.215+0.141t}} = 0.25477\,.$$

For one hundred companies, the theoretical number of companies beginning their financial statements with the income statement is 25.477, while the number observed is 26 (see Table 11). The model fits the data well since the Hosmer and Lemeshow chi-square equals 0.632, which leads to a significance level of 0.996 (higher than 0.05). Moreover, the slope of the model is highly significant since Wald $(0.141/0.033)^2 = 18.485$, which leads to a significance level of 0.000, lower than 0.05. H1 is accepted.

Clearly, Model (1) can also be written as Model (2)

$$Ln\left(\frac{p(t)}{1-p(t)}\right) = a + bt$$

where $p(t)$ is the proportion p for the period t. It is also useful to look at the odds-ratio (OR) related to time:

$$OR = \frac{p(t)/(1-p(t))}{p(t-1)/(1-p(t-1))}$$

It can be deduced from Model (2) that $OR = e^b$. This odds-ratio (here it equals 1.152—see Table 13) measures the growth rate of the observed variable. When it

TABLE 14

OVERVIEW OF STATISTICAL RESULTS

	Hypotheses	Hosmer and Lemeshow test (significance level)	Time – Wald (significance level)	Accepted or rejected
H1	Income statement reported as the first document	0.996	0.000	Accepted
H2	Publication of a statement of cash flows	0.968	0.000	Accepted
H3	Statement of changes in equity published as a financial statement	0.964	0.003	Accepted
H4	Publication of indexed notes	0.709	0.000	Accepted
H5	Balance sheet presented for 3 years	0.652	0.000	Accepted
H6	Income statement presented for 3 years	0.534	0.000	Accepted
H7	Balance sheet presented by term	0.781	0.001	Accepted
H8	Balance sheet assets presented in one column	0.000	0.003	Rejected
H9	Income statement presented by function or in simplified format	0.916	0.000	Accepted
General hypothesis: move away from traditional French practices		0.412	0.000	Accepted

is higher than 1, the trend is increasing. The bigger it is, the more significant the evolution.

Table 14 shows the statistical results for all nine hypotheses as well as the general one. Except for H8, all the hypotheses are validated statistically. The general hypothesis is also accepted: over the last decade, the financial statement presentation of large French groups has been becoming more and more 'international', at least for consolidated financial statements, with groups adopting a mixture of IAS, U.S. and U.K. rules and practices.

In Table 15, we classify all the variables studied according to their odds-ratios, which indicates in concrete terms the contribution of each variable to the general trend revealed by the analysis. Our results are in line with other research showing the tendency of European companies to move closer to the Anglo-American model. In their study of accounting properties—timeliness and conservatism—in seven major developed countries, Ball *et al.* (2000) find that between the two sub-periods, 1985–90 and 1991–95, French companies significantly increased the asymmetrical conservatism of their accounting income. This indicates a leaning towards the common-law financial reporting model. A KPMG study (2000) of the GAAP adopted by 122 companies from sixteen European countries shows that 61 per cent of these companies have already used IAS or U.S. GAAP, or provided a reconciliation of their financial statements with these standards. Moreover, of

TABLE 15

VARIABLES CLASSIFIED BY THEIR ODDS-RATIO

	Variables	Odds-ratio
H5	Balance sheet presented for 3 years	1.628
H6	Income statement presented for 3 years	1.579
H2	Publication of a statement of cash flows	1.331
H4	Publication of indexed notes	1.289
H7	Balance sheet presented by term	1.198
H8	Assets of the balance sheet presented in one column	1.155
H1	Income statement reported as the first document	1.152
H9	Income statement presented by function or in simplified format	1.090
H3	Statement of changes in equity published as a financial statement	1.069

the forty-five companies still using national GAAP, twenty intend to convert to IAS or U.S. GAAP within three to five years. A study by the Deminor consultancy (2000) finds almost the same result: nearly 60 per cent of the European companies surveyed use either IAS or U.S. GAAP. Research by Bos *et al.* (2000) into European companies listed in the U.S. shows that of the 103 companies studied, the percentages that disclose their domestic annual reports in IAS, in U.S. GAAP or in more than one GAAP are 4, 18 and 20 per cent, respectively.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This survey was only possible because of the 'dichotomy' in France between individual corporate and consolidated financial statements; the rules give French groups relative 'freedom' in their consolidated financial statements. Without this freedom to choose, French groups could have made no move away from traditional French practices, unless there was a change in the regulations and internationalization became compulsory.

There must be no confusion between a single given case and a development in progress. Although our survey clearly shows a trend towards the adoption of alternative practices, it is wrong to assert that all the variables show that the majority of French groups have adopted alternative practices in the presentation of their financial statements. For example, while it is true that the number of firms using Anglo-American formats for their balance sheets and income statements has increased, traditional formats, by nature, still dominate the presentation of financial statements, for both the balance sheet and the income statement.

Moreover, although reference in the literature review above is to studies that underscore the supremacy of the Anglo-American model, other researchers contest the information value of accounting disclosure in U.S. GAAP for non-American firms. For instance, Alford *et al.* (1993) find that accounting earnings

prepared in accordance with the domestic GAAP of Australia, France, the Netherlands and the U.K. are more timely or more value-relevant than accounting earnings prepared in accordance with U.S. GAAP.

Although the work presented here focuses on the presentation of financial statements and not on accounting methods, the two may be inter-related. It should not be forgotten, for example, that an international-style presentation may hide substantial differences in accounting methods.

This study was based on French language versions of financial statements. To our knowledge, the English version of financial statements is generally a simple translation of the French version, except in a few cases (e.g., Clarins). However, it would be interesting to identify cases where the two versions are not identical and analyse the differences in presentation.

Finally, the study does not provide evidence that the trend among French groups is a result of the influence of other standards. We can simply observe that the new French practice is a mixture of alternative practices taken probably (but not certainly) from IASs, U.S. GAAP or U.K. GAAP. The origin of the new French practices could be investigated further.

As far as future research is concerned, at least three interesting directions are posited. First, while it is interesting to know that large French groups publish financial statements of increasingly 'international' format, it would be useful to explain this development, using several variables such as ownership by foreign shareholders, multi-nationalization of the company and its executives, including CFOs, and the changes in the approach by French financial analysts. Second, after several necessary adjustments to the options offered or imposed by national accounting standards, our model could be used to measure the 'internationalization' trend of financial statement presentation in other countries, and to identify the variables contributing the most to this trend by means of the odds-ratio. Finally, a trans-European comparison would be very useful, and could deepen our understanding of the different rates at which large firms in various Continental European countries are adopting 'international' accounting models.

CONCLUSION

Over the last ten years, more and more large French groups have begun their financial statement presentation with the income statement. The content of their financial statements has also been expanded to include not only the traditional balance sheet and income statement, but also the statement of cash flows and the statement of changes in shareholders' equity, as a separate document. To complete their financial statements they have, with increasing frequency, also added indexed notes.

The results presented here provide broad support for the general hypothesis that the financial statement presentation of large French groups has become less markedly French over the last decade, at least in the consolidated financial statements. This trend is a result of a sort of 'shopping around' among IAS, U.S. and U.K. practices. This apparently opportunistic approach on the part of large

French groups could be interpreted as a deliberate choice made to further their success on the international financial markets.

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APPENDIX

LIST OF FRENCH GROUPS INCLUDED IN THE SAMPLE IN 1999

Accor	Dynaction	Promodès
Aérospatiale	Eiffage	PSA-Peugeot Citroën
Air France	Elf	Publicis
Alcatel	Eramet	Rémy Cointreau
Alstom	Eridania Béghin-Say	Renault
Altran Technologies	Essilor	Rhône-Poulenc
André	Faurecia	Royal Canin
Atos	Fives-Lille	Sagem
Bel	Framatome	Saint-Gobain
Bic	France-Telecom	Sanofi
Bolloré	Galeries-Lafayette	Schneider
Bongrain	Geodis	Seb
Bouygues	Havas Advertising	Seita
Bull	Hermès	Sge
Canal +	Imerys	Sidel
Cap Gemini	L'Air Liquide	Skis Rossignol
Carbone Lorraine	L'Oréal	Snecma
Carrefour	Labinal	Sodexho
Casino	Lafarge	Sommer Allibert
Castorama	Lagardère	Strafor Facom
Cea-Industrie	Legrand	Suez Lyonnaise des Eaux
Chargeurs	Legris Industries	Taittinger
Cie Générale de Géophysique	Lvmh	Technip
Ciments Français	M6	TF1
Clarins	Michelin	Thomson-Csf
Club Méditerranée	Moulinex	Thomson Multimédia
Coflexip	Norbert Dentressangle	Total
Communication & Systèmes	Pathé	Usinor
Damart	Péchiney	Valeo
Danone	Pernod Ricard	Vallourec
Dassault Aviation	Pinault Printemps-Redoute	Vivendi
Dassault Systèmes	Plastic Omnium	Worms & Cie
De Dietrich	Primagaz	Zodiac
Dmc		

Source: 'L'information financière en 1999: 100 groupes industriels et commerciaux' [Financial information in 1999, 100 industrial and commercial groups], p. 673.

ABACUS, Vol. 39, No. 1, 2003

FRANCESCO CAPALBO

Domestic Practice, Comparative International Analyses and Accounting Discretion—Italian Savings Banks' Pension Cost Accounting

In countries where the use of financial statements is minimal and relative accounting debate less intense, domestic practices may gain benefit from being consistently applied. Comparison with foreign experience is crucial. It leads to questioning of the appropriateness of practices that might otherwise never be discussed, particularly where they are developed in such a way as to favour the stakeholders controlling the accounting process. A salient example evidencing the above claims is to be found in the Italian savings banks (hereafter 'banks') accounting for the cost of defined benefits pension plans. The Italian financial system is credit-based. While banks play a predominant role, the financial industry itself enjoys significant autonomy in setting its accounting standards. This is especially so in respect of the accounting for the cost of pensions as savings banks have offered the most significant and almost unique example of employees' defined benefit pension plans in Italy.

The present article compares some aspects of the long debated international and Anglo-Saxon standards' recommendations with the infrequently questioned Italian domestic practice. The substantial deviations that emerge in the Italian system favour particularly management and proprietorship by allowing a significant degree of discretion regarding the labour cost figure, thereby enhancing the banks' salary bargaining strength.

Key words: Comparative accounting; Discretion; Earnings management; Pension plans.

Comparative international studies may help to improve domestic accounting 'by observing how other countries have reacted and are reacting to problems' (Nobes and Parker, 2000). Domestic practice may gain credit by simply being applied consistently, especially when—as is the case in a credit-based financial system country like Italy—the accounting debate is less intense, primarily because of the limited number of external shareholders. However, some external stakeholders

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do exist in respect of many Italian corporations, affording comparison with foreign practice. This evokes a possibly unique setting in which to discuss the appropriateness of Italian domestic practices that are otherwise infrequently questioned.

A salient example evidencing the above is the accounting practice of Italian savings banks for the cost of defined benefits pension plans. The Italian financial system is, without any doubt, a credit-based one (Nobes, 1998). And while banks play a predominant role, the financial industry (through the Italian Banking Association) itself enjoys significant autonomy in setting its accounting standards.

It is instructive to compare the previously infrequently questioned Italian practice with some of the long-debated international and Anglo-Saxon standards' recommendations regarding the determination and the presentation of the pension cost and liability.

The emerging differences are surprising. Financial and accrual aspects of pension accounting completely overlap in the Italian approach. This allows managers greater discretion in determining the annual pension cost than would exist were they to comply with the IASB recommendations that many other European countries follow. Analysis of the current Italian practice reveals an undue inflation of labour cost that affects banks' salary bargaining benchmarks. Ultimately this significantly favours managers and proprietors.

STRUCTURE OF THE PENSION PLAN AND DETERMINATION OF PENSION COST AND LIABILITY

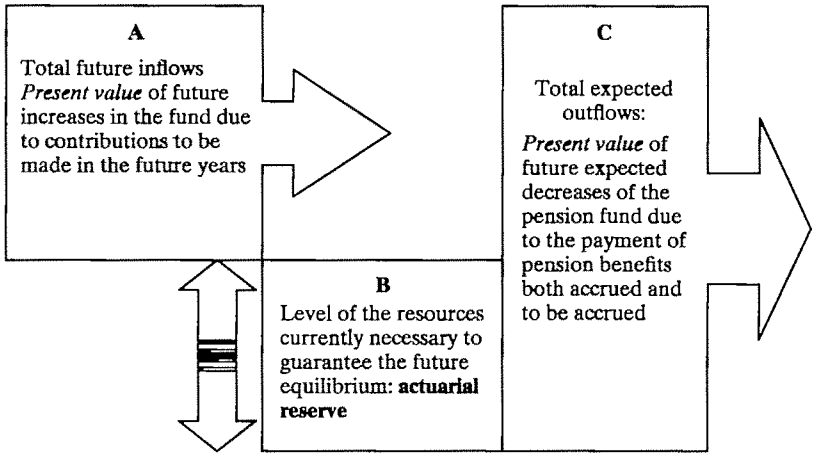
Savings banks are the main and almost only Italian example of large private employee *defined benefits* pension plans. The plan generally operated follows a final salary pension formula. The bank employer, therefore, commits to a pension formula that, in exchange for each year of service accrued, normally recognizes an annuity with each instalment being a given percentage of the final salary. For the higher security of employees, the bank is also required to provide a periodic contribution to an often internally managed fund whose resources are then, by law, to be exclusively destined to the settlement of the pension liability (Civil Code, art. 2117).

Analysis of a *funded* plan may be divided into two steps: the first highlights the financial aspects, and the second, the accrual aspect. From a financial standpoint, the annual contribution banks make to a fund is determined in such a way as to keep the fund always at the *actuarial reserve* level. This is the level that a monetary fund should currently have so that, given future increments, it will *most probably* be able to cover future cash outflows. In the specific circumstance, the actuarial reserve ('B' in Figure 1) is therefore determined as the difference between the present value of the expected future decreases in the fund (due to pension pay-outs, 'C' in Figure 1) and the present value of the planned future increases in the internal pension fund itself (due to the future contributions, 'A' in Figure 1).

The annual contribution is normally required to be expressed as a fixed percentage of the annual payroll and to accumulate all the necessary resources

FIGURE 1

THE ACTUARIAL RESERVE



during each employee's working life such that, upon retirement, no further contribution should be necessary to guarantee the coverage of the annual outflows of the annuity to the employee. This is an actuarial method known as projected accrued benefit cost method with level percentage variation (McGill and Grubbs, 1989).

From an accrual standpoint, pension plans are regarded as a variety of *deferred remuneration* (Dean, 1950; Moonitz and Russ, 1966; Hall and Landsittel, 1977; Kam, 1990; Wolk *et al.*, 1992). As such, the legitimate accounting function is to determine and represent the impact of that remuneration on the employer's *accounting* income and capital, and to match it against the benefits the employer enjoys from the beneficiaries' service during their working lives (Dewhirst, 1971).

Each service period should thus be charged with the 'cost' of the stock of services depleted. Cost being the price the parties agreed on in the pension formula to pay for the services acquired in that year (FASB, 1986, Summary).

Particularly in the case of defined benefits pension plans, the agreed price for the service rendered yearly by the employees is thus the expected value of the annuity accrued according to what is stated in the *pension formula.* This is a highly uncertain amount that can be determined only on the basis of actuarial assumptions relating to several demographic and financial variables (Miller, 1989, p. 31.04). The value obtained in that way has then to be discounted in order to separate the price paid for the labour force (the service cost) from the price due for the deferral (the interest cost) (Milburn, 1980; Gamble and Cramer, 1992). This distinction is essential for both a fair presentation and a fair determination of the employer's income (Moonitz and Russ, 1966, p. 167). Thus, the annual service cost to be charged to the income account should be determined as the 'present' expected actuarial value of the pension benefits accrued in the year according to

TABLE 1

METHODS USED TO DETERMINE PENSION COST AND LIABILITY IN EUROPE AND THE U.S.

Country	
Austria	Accrued benefit method (based on current salary)
Belgium	Accrued benefit method (based on current salary)
The Netherlands	Projected unit credit method (IAS 19)
Portugal	Projected unit credit method (IAS 19)
Ireland and U.K.	Projected unit credit method (FRS 17)
Spain	No official prescription. Most companies follow SFAS 87 (any accrued benefits method) or IAS 19 (projected unit credit method)
Sweden	No present regulation, but the Swedish Financial Accounting Council is going to issue an exposure draft based on IAS 19
Norway	Accrued benefits valuation methods
U.S.	Accrued benefits valuation methods

Source: Alexander and Archer (1998)
Note: For accounting periods beginning on or after 1 January 2005 the EU's listed companies must use EU-adopted international accounting standards in their group financial statements.

what is set in the pension formula. Numerous accounting pronouncements state that such service cost—along with the interest cost accrued on the pension liability at the beginning of the year—would lead to the pension liability at the end of the year being the present expected actuarial value of the benefits accrued and not paid at that date (FASB, 1986; IASC, 1998; ASB, 2000).

This projected unit credit method which belongs to the wider family of the accrued benefits methods, is now currently recommended by ASB (2000), FASB (1986), and IASC (1998), and commonly applied in other European countries (Table 1).

Unexpectedly, the pension fund (*fondo di quiescenza*) reported as a liability in the banks' financial statements does not reflect the above-defined concept of pension debt. It is anything but the same actuarial reserve calculated to guarantee the financial equilibrium. The notes to the financial statements reveal the actuarial reserve is presumed to offer the *best* measure of the accrued pension liability and their identity is reported as the only accounting rule to be followed to determine the annual pension cost. Such a cost, therefore, determined as the provision necessary to make the pension fund at the actuarial reserve level (as communicated by the actuaries) completely equates to the contribution annually determined to ensure the financial equilibrium and is then labelled the equilibrium contribution.

Financial and accrual aspects of the pension plan completely overlap. The concept of the *fund* intended as a provision is completely confused with the one intended as a fund of money or investments. There is no distinct determination of the annual contribution and of the annual pension cost, just as the proper measure

of the pension liability at any given date is presumed to equal the actuarial reserve. In the case of a funded plan instead, as it is envisaged in Italy, the accountant is expected to not confuse the accrual process leading to the measurement of annual service cost with the financial process leading to the measurement of the yearly contribution, even when this is intended to guarantee a constant prospective financial equilibrium (Lucas and Miller, 1983, p. 92; FASB, 1986; Ward, 1990; IASC, 1998; ASB, 2000). While the actuarial reserve is influenced by both the flow of future contributions ('A' in Figure 1) and the benefits accrued as well as by those yet to be accrued ('C' in Figure 1), it is expected to guarantee a long term financial equilibrium. Then, the pension liability figure should reflect just the price agreed to be paid, but not yet paid, for the benefits already accrued at a given date.

SOME IMPLICATIONS OF THE ITALIAN APPROACH TO THE DETERMINATION OF PENSION COST AND LIABILITY

It is instructive to contemplate why such a practice has survived irrespective of the nature of the transactions in contrast with most foreign, and especially European pension practices. As the difference between pension liability and the actuarial reserve is unequivocal (McGill and Grubbs, 1989), the absence of any significant critical comment in the Italian academic journals is surprising. The advocated identity between actuarial reserve and pension liability is not unknown to the international literature. Indeed, it is the rationale of what are commonly called the projected benefits valuation methods. Their application, though sometimes supported (Pesando, 1971; Pesando and Clarke, 1983; Ippolito, 1985), is excluded by most national and international accounting standards issued on the topic. Surprisingly, in the Italian accounting literature there is no significant trace of the debate that led the standard-setters bodies to such a conclusion.

In order to gather more data on the matter, a questionnaire was forwarded to the Italian savings banks included in the 1997 statistical computations of the banking sector journal, *Bancaria*. The response rate of barely 5 per cent was disturbing. Only four responses of seventy-four emerged. The result creates suspicion that the banks may have been reticent to reveal matters or, at least, that the issue of accounting for the cost of pension was unclear. The research reported here was then undertaken on the basis of an analysis of the banks' financial statements and personal interviews, especially with the actuaries involved in the calculations.

This process revealed several potential explanations for the enduring nature of the approach followed by Italian banks:

1. In an ongoing situation it does not apparently damage the short-term interests of any particular category of stakeholders. While the identity of the pension fund with the actuarial reserve guarantees the capacity for payment of pensions as they fall due, an immediate settlement of the whole pension liability is extremely rare.
2. Confusion arises in respect of the life-insurance companies' experience, where the actuarial reserve is a measure of the debt accrued. This is the difference

between the expected present value of the annuities to be paid and of the contributions yet due by the beneficiaries (the company's liabilities and assets, respectively). In the case of an employee pension plan, both the contribution to the fund and the annuities will be paid by the bank, so that no trace of credit exists.

3. The stability of the beneficiaries' population is a further factor. The 'equilibrium contribution' is determined generally by setting it as a fixed percentage of the annual payroll, making it therefore quite stable over time (projected benefits valuation methods). In contrast, a pension cost obtained as the present actuarial value of the benefits accrued in the year (accrued benefits methods) increases as the employee ages and the discounting period diminishes. But in a mature plan the overall pension cost is expected to be stable too, arguably, since the mixture of young and old employees tends to even out the results (Wolk *et al.*, 1992, p. 489). When the average age of the employees tends to be fixed, in an ongoing situation, a reasonable expectation is that the service cost determined according to the accrued benefits methods tends to be stable over time (Davis and Bingham, 1989) approximating to the Italian 'equilibrium contribution'.
4. In most cases, pension plans are just *nominally* funded, since what they refer to as 'contribution' shows up to be a book provision and, therefore, pension assets do not actually exist. This of course eases the confusion between the two meanings of 'fund' in accounting: on the one hand to denote a provision, and on the other to indicate an aggregation of resources (Vatter, 1947, p. 73; Nobes and Parker, 2000, p. 39).[1]
5. Finally, there is the significant freedom in determining both the annual cost and the accrued liability. When the accrued liability is the actuarial reserve amount, it will suffice to change the amount of the contributions to be made in the future in order to affect the level of the present debt. Figure 1 shows that, given the amount in 'C', any increase in 'A' will result in a lower amount in 'B'.

The last of these explanations seems especially apposite in explaining the permanence of the Italian practice. The overlapping of the concept of the actuarial reserve with the accrued debt accommodates much more discretion than the accrued benefits methods followed in other countries.

On the basis of the promise of predicted behaviours, managers may modify 'at their will' the level of recognized debt and thus inject the account of the annual pension cost with an amount more 'convenient' for them at that time. For example, the particulars noted here suggest that this seems to have happened at the Carical bank in 1997. To cover a 31 billion lire gap between the pension fund reported in the liabilities section and the actuarial reserve, Carical created an annual extraordinary pension provision of just 26 billion lire in 1997, covering the remaining part with the promise to raise the annual percentage of the payroll to be accrued in the future years as annual equilibrium contribution by 0.284 per

[1] In the Italian language the word *fondo* is used to refer to a provision as well as a fund of money.

TABLE 2

ANALYSIS OF CORRELATION BETWEEN PENSION COST OVER PAYROLL AND ANNUAL INCOME

Significance level	Probability of the acceptance area	Correlation coefficient	Cases of hypothesis not accepted	Hypothesis accepted
$\alpha = 0.01$	$1 - \alpha = 0.99$	$r = 0.8$	50	9
$\alpha = 0.05$	$1 - \alpha = 0.95$	$r = 0.7$	42	17
$\alpha = 0.1$	$1 - \alpha = 0.90$	$r = 0.6$	37	22
$\alpha = 0.25$	$1 - \alpha = 0.75$	$r = 0.35$	20	39

cent. By inflating the expected future inflows to the fund, this action lowered the actuarial reserve to the desired level.[2]

This makes accounting for the cost of pension in the Italian banking an even more discretionary issue than it is in the highly regulated markets of the U.S., U.K. and, say, Australia (Schuetze, 2001, p. 12).

Against that background, the financial statements data of the savings banks whose annual reports are included in the Italian Banking Association accounting database (ABI-Bilbank) were analysed in order to check whether such potential discretion was used to produce an apparent income-smoothing result. This was indeed what would have been suspected from the informal interviews with the actuaries involved in the annual calculations. The analysis was limited to a period no longer than six years, for in 1993 the long awaited implementation of the second European directive completely changed the format of the Italian banks' financial statements. Coverage of a longer interval would likely have altered the significance of the comparisons. The original population comprised seventy-four banks. These were reduced to fifty-nine to exclude banks that—because, for instance, of a merger or an acquisition—did not offer a complete series of data (thirteen), and two that were not implementing a pension plan.

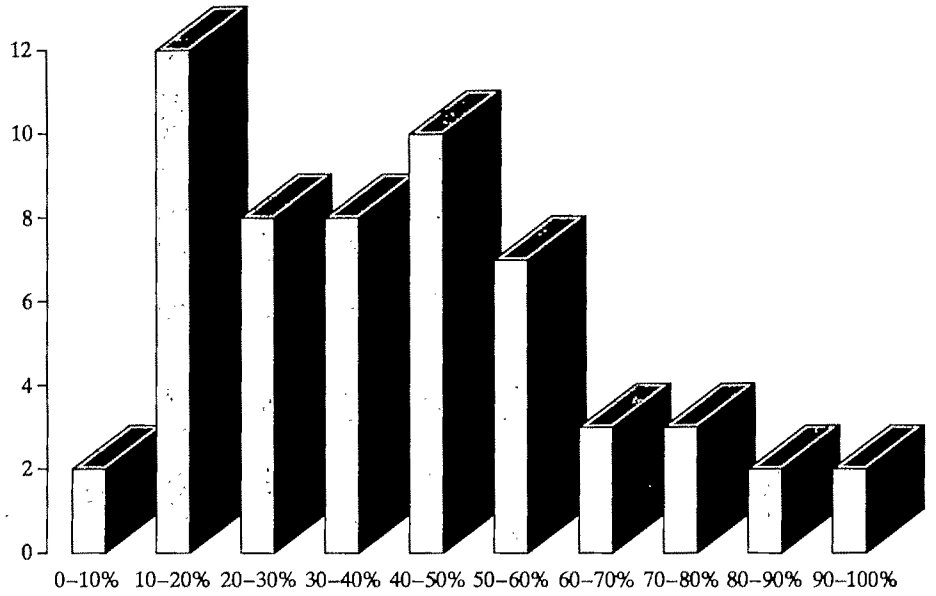
On the basis of this sample, the hypothesis examined was that there would be arbitrary *increases* in the pension cost in the event of particularly favourable income. Managers, indeed, have minimal discretion to reduce pension costs below the claimed fixed percentage of the payroll, and in any case could never emerge with a negative pension cost. The results, however, fail to confirm any correlation between the cost of pension over payroll ratio and the positive net income (Table 2).

Nonetheless, the international literature has provided many other examples of management earnings policies, other than the income smoothing one (Schipper, 1992; Elliot and Hanna, 1996; Alciatore *et al.*, 1998; Levitt, 1998). While some studies have advocated a completely different pattern such as the 'big bath' explanation (Chen, 1991; Zucca and Campbell, 1992), others have provided results contrasting with both of them (Francis *et al.*, 1996). Non-monetary costs, arising from asset write-downs and

[2] This is illustrated in the notes to Carical 1997 financial statements.

FIGURE 2

VARIATION COEFFICIENT OF THE PENSION COST OVER PAYROLL FROM 1993–98



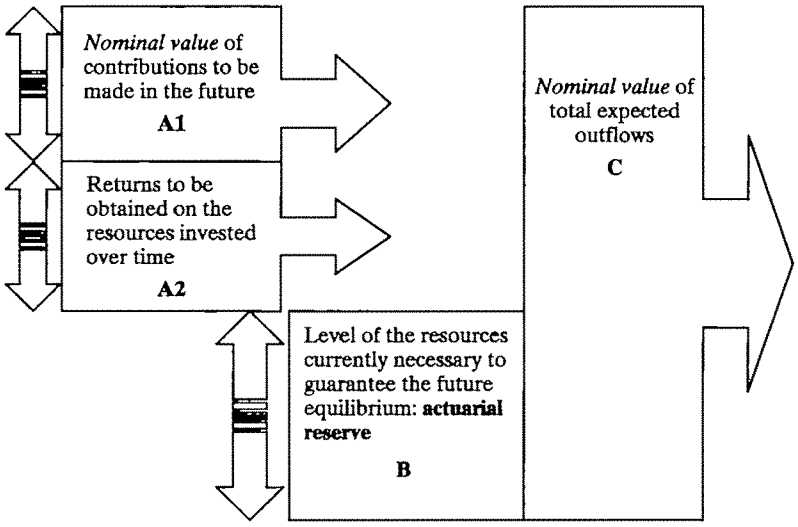
other provisions, have been shown to be highly influenced by particular circumstances such as incentive compensation plans (Dechow *et al.*, 1994; Chen and Lee, 1995; Gaver and Gaver, 1998) or a change in management (Francis *et al.*, 1996). All this seems to hint at the opportunity to address and quantify the degree of the discretion available in measuring the cost of pensions, rather than its actual use to implement any of the traditionally studied *earnings management* policies. 'So long as the management controls the numbers nothing will change' (Schuetze, 2001, p. 11). There are likely to be many different ways to misuse the discretion allowed in preparing accounting data depending on the purposes of management and the goals they are expected to achieve (Levitt, 1998).

An indicator of the discretion used by the Italian banks' management in measuring the pension cost amount was thus sought. As all Italian savings banks claim to determine the annual pension cost as a fixed percentage of the annual payroll, the variation coefficients of the cost of pension over payroll ratio over the six years for each bank were calculated.

The median variation coefficient of the analysed population was 38.99 per cent, but a clearer idea of its dispersion can be gained from Figure 2. Those results appear to refute the claim of an annual pension cost determined as a fixed percentage of the annual payroll. Indeed the 'pension cost' emerged to be quite free from any such approach, and often to entail significant annual variations. This suggests the presence of a great deal of discretion available to management, irrespective of any use they may have made of it.

FIGURE 3

FINANCIAL EQUILIBRIUM IN NOMINAL VALUES



PRESENTATION OF PENSION COST AND LIABILITY

Analysis of the presentation practice elicits more evidence supporting the idea of a practice of significant convenience to the managers and proprietors, compared to the practices followed in most other developed countries.

Regardless of the way the pension cost is determined, the banks' financial statements should report a 'service cost' (for labour service), an 'interest cost' (for the deferral service) and, where funding exists, a return on pension fund assets. Curiously, none of these is currently reported.

The pension fund item reported in the banks' balance sheets does not aim to express the debt to be paid eventually to the employees. Therefore, it does not increase annually by the cost of the services acquired in the year or by the interest accrued due to the passage of time. It represents an aggregation of resources whose purpose is to guarantee the financial equilibrium. It increases yearly through the annual contributions as well as through returns earned on the investment of resources accrued in the past. Charging these returns off to the fund is then essential to take it to the actuarial reserve level. This is particularly evident when Figure 1 is recalibrated in terms of nominal values (see Figure 3).

The annual provision necessary to take the fund to the actuarial reserve level comprises the equilibrium contribution and the charge off of pension fund returns. Therefore, given an actuarial reserve, the higher the returns the lower the pension contribution. But since both the annual contribution and the charge-off are reported in the Italian savings banks' income account as a unique *item line*

TABLE 3

EXAMPLE OF TRADE OFF BETWEEN INTEREST COSTS AND PENSION COST

Raw data	
(a) Pension fund in the balance sheet at 1/1/200X	1000
(b) Buildings of the pension fund	400
(c) Pension asset invested as a loan to the bank at 1/1/200X	600
(d) Net rents on buildings	40
(e) Interest recognized by the bank on the obtained loan (10%)	60
(f) Actuarial reserve at 31/12/200X	1300
(g) Equilibrium contribution of the 200X: (f–[a +d +e])	200
Pension cost to be brought to account	
(h) Equilibrium contribution	200
(i) Charge off of the interest	60
(j) Charge off of the rents	40
(k) Pension cost (h +i +j)	300
Profit and loss account	
Other Positive Components	
Rents	40
Operating expenses	
Pension cost	(300)

dedicated to the pension cost, this behaviour distorts the income information, generating an undue increase of labour expenses.

In most cases the resources formally destined for the pension fund are instead retained within the bank, commingled with its own resources. This practice is considered a form of investment of the pension fund in a single loan to the bank. The returns on fund assets are then mainly, and often only, the interest the bank recognizes to the fund on the borrowed money. Charging those interest accruals off through a unique pension cost item creates a clear trade-off between financing costs and labour costs reported in a bank's income account. What should be an interest cost to the employer ends up being shown as a charge against the pension asset returns and is then reported as a personnel cost. As the Table 3 calculations demonstrate, the returns obtained on pension assets are inexplicably interwoven with the banks' investment returns.

The significant inflation of the pension cost is evident when the Italian practice is compared with FASB and IASB prescriptions. Both standard-setting bodies require reporting of the sum of service cost, interest cost and the returns on the pension assets in a unique, separate line item of the income account. Accordingly

a *net pension cost* is reported within the labour expenses, and its components given only as a supplementary disclosure.

The cost required to be reported among the personnel expenses, even if increased by the interest cost, is, at least, net of the return on pension assets. Therefore, when the return should equal the interest cost, the definitive cost of the plan would only be the cost for the service. In contrast, as a result of the approach applied in the Italian banks, the return obtained on the pension assets always enhances the pension cost item.[3] The difference would be greater if compared with the data that would emerge under U.K. practice. There, FRS 17 requires, more correctly in my view, the service cost to be reported within the personnel costs and the interest cost and return on assets to be included net as a financial item adjacent to interest (ASB, 2000).

Indeed, particularly in the common event that the plan is only partially funded or *not funded at all* (that is, for example, how it normally works in Germany and Italy; FEE, 1995), a pension plan may hide the actual financial operation. Reporting the whole interest cost in the net pension cost datum generates an unnecessary set-off between the financing and the operating area of the income account.

As to the balance sheet, no trace of pension assets exists in the Italian savings banks' financial statements, though, in contrast with international practice, not by virtue of an offsetting with the pension liability (FASB, 1986; IASC, 1998; ASB, 2000). As Italian pension plans in most cases are formally funded, pension assets do not formally exist. But, even in those cases where separate fund assets invested outside the bank are reported to exist, no distinct indication of this is to be found in the balance sheet. Nor is the pension fund balance net of these assets to be found, since, as is well known, it has to equal the actuarial reserve. Those assets remain lumped together, indistinguishable from the other bank assets.

SOME IMPLICATIONS OF THE ITALIAN APPROACH TO THE PRESENTATION OF PENSION COST

Possibly it is naive to suggest that the inconsistency of the anomalous practice relative to a properly classified profit and loss account has gone unnoticed. Indeed, the Cariplo bank, by far the largest savings bank in Italy, presents the 'pension fund earnings charge-off' as a distinct item line. This hints at an awareness that a problem exists. But, presumably, the interest of the stakeholders controlling the accounting process is paramount.

Over the last few decades an increased employee influence on governments and on the attitude of the society towards specific separate firms and the economic sector has been observed (Brooks, 1995). Achieving overall approval on the appropriateness of labour cost is consequently of increasing importance to economic

[3] Applying the FASB or IASB presentation prescriptions in the example in Table 3, and assuming the service cost determined according to the projected unit credit method to equal the equilibrium contribution (h), would produce, given a discount rate of 10 per cent, a net pension cost, among the labour expenses, of just 260 (200 [service cost] + 100 [interest cost, i.e., 10 per cent of 1.000] – 40 [return on assets]).

success. Comparison within the European Union is one of the more effective ways to reach this goal. According to the Italian Banking Association 1998 Report, the Italian banks' labour cost is one of the highest in Europe (Prosperetti and Durante, 1998, p. 31). That opinion seems to underpin the agreement signed in 1998 by the property and trade unions of the Italian banks, in which the parties had committed to reduce labour cost on the *added value* ratio by 3.7/4.1 points by the end of 2001 (Accordo Quadro, 1998). The currently available data show that the reduction achieved over the end of 1999 was of barely one point (www.abi.it/jhtml/home/prodottiServizi/bancaLavoro/statisticheLavoro/costoLavoroRetribuzoni/costoLavoroRetribuzioni.jhtml).

With this in mind, the pension plan income components were reclassified in the income account according to their nature and function. The work done and the substantial homogeneity of behaviour encountered in less systematic analyses suggested reducing the population of banks from fifty-nine to twenty-seven. The reduction was random, except for Cariplo bank which was removed both because of the uniqueness of its behaviour and its size compared with the rest of the savings banks. Nonetheless, the lack of disclosure and the failure to obtain additional data through the questionnaires, necessitated many assumptions.

Given the restricted sample, the following items were extracted from the annual pension cost line item of the income account:

1. The charge-off of the returns obtained on pension assets: When the annual pension contribution (the annual pension cost) was reported to entail a charge-off of returns on pension assets, but the amount was not indicated, it was assumed to be a medium rate of 6 per cent on the assets invested outside the bank.
2. The charge-off of the interest recognized by the bank itself on fund resources borrowed by the bank. Where not indicated in the notes, the interest was calculated on the basis of the fund resources amount. Even if an interest cost is not expressed, the bank is borrowing money from the fund. Were those resources otherwise invested, the charge-off of the results would reduce the contribution necessary to take the fund to the actuarial reserve level and, therefore, the pension cost to be brought to the profit and loss account. As far as the choice of interest rate is concerned, it suffices to show the relation between the amount of the rate applied and the results in terms of corporate governance. Thus Table 4 shows the variations in pension cost due to a series of four different rates relative to the medium 6 per cent rate.[4]

This, of course, reduces also the weight of the labour cost over the added value ratio (Table 5), so that any reported comparisons with other EU Members should perhaps be reviewed. In some countries, for example Sweden, where the

[4] In a financial approach the economic nature of the returns the bank recognizes to the pension fund is for any interest paid. Therefore, given the reduced risk of the Italian banking sector, the hypothesis applied seems to be realistic. For example, General Electric's expected average return on pension assets is 9.5 per cent where the return obtained in 1997 was 19.8 per cent. For a wider analysis over the rates employed in the U.S. see Blankley and Swanson (1995). For a mathematical perspective on the rate problem see Brown and Taylor (1938).

TABLE 4

VARIATION OF PENSION COST AND LABOUR COST

Rate (%)	Sample average reduction in pension cost item (%)	Sample average reduction in total labour cost (%)
5	53.65	5.76
6	58.92	6.29
7	65.99	6.82
8	72.16	7.36
9.5	81.00	8.15

TABLE 5

VARIATION OF LABOUR COST OVER ADDED VALUE RATIO[5]

Rate (%)	Not revised (%)	Revised (%)	Percentage variation (%)	Absolute variation (points)
5.00	42.83	41.12	–4.17	–1.71
6.00	42.83	40.98	–4.51	–1.85
7.00	42.83	40.85	–4.87	–1.99
8.00	42.83	40.71	–5.22	–2.13
9.50	42.83	40.5	–5.77	–2.33

unfunded pension plans are widespread, the interest component is reported in financial expenses. In others, for instance in the U.K. and Ireland, where funded plans are more common, the net of interest cost and returns on pension assets will be reported in the financial section of the income account. In any case, in all the countries where the unit credit method is applied (Austria, Belgium, the Netherlands, Portugal, Norway, Spain; see Table 2), the pension cost will be net of returns on fund assets.

Finally, there are some implications in terms of possible concealment of related parties' transactions. The provision to be accounted for every year has to be of such an amount as to equate the fund with the actuarial reserve level. Since the provision is the sum of the charge-off of the pension fund returns and an annual contribution, the higher the former the lower the latter. But, since the charge-off and the pension cost are aggregated in the same line item, this does not have any

[5] The added value is a fairly well known figure in the Italian banking sector and is known as *margine di intermediazione*. It is expressed net of the charge-off on the resources invested within the bank. Indeed, once this has been taken away from the pension cost it has to be located in the same section where the relative returns are. In practice, it is difficult to know where these returns are reported, but it is certain that they are included in the added value. This is the most pessimistic consideration of this article.

effect on the profit and loss account and therefore on the ratios discussed above. The pension cost reported in the income account is independent of the fund performance. This practice attracts little attention to the criteria used in the evaluation of pension fund investments that are never disclosed. It leaves room to reduce the banks' operating expenses every time they undertake a transaction with the fund. For example, when banks rent a building from the pension fund—quite a common occurrence anecdotal evidence would suggest—the pension cost is the same regardless of the price paid. The bank may be motivated to keep the rental cost low in order to reduce its operating expenses, to the detriment of the performance of the pension fund, whose returns: (a) are not disclosed in its income account; (b) are seldom indicated in an attached report; and (c) do not affect the personnel cost level.

If an agreement is reached upon the removal of the charge from the pension fund's returns from the operating area, whether determined on the market or determined in a nominal way, the necessity to evaluate such a return in a reliable way has to be faced.

A number of reporting implications emerge, in particular:

1. Identifying all the transactions with the employer or other related parties and verifying the significance of the prices set;
2. Distinguishing the pension fund assets from the other bank's assets and evaluating them at fair value; and
3. Identifying the appropriate interest rate to be used in calculating the return to be recognized on the pension plan asset indistinctly invested within the bank.

CONCLUSIONS

This analysis has proceeded on a primary premise that comparing Italian with international practice may trigger a revision of deeply rooted and misleading (though infrequently questioned) domestic practices. This is not to suggest that foreign practices, as well as international standards, are free from bias and political lobbying. Nonetheless as the diversity triggers a questioning process that could otherwise lie dormant, the authority of the international recommendations may facilitate national change processes.

An analysis of Italian savings banks' accounting for the cost of their defined benefits pension plans offers evidence in support of the above premise. A practice inconsistent with the nature of a pension plan intended as deferred remuneration has remained unquestioned in Italy, notwithstanding extensive overseas debate over accounting for the cost of pensions. Despite the frustrations of gathering definitive survey information on the financial elements of the savings banks' pension plan operations, analysis here of the data gleaned from their financial statements has demonstrated that Italian practice facilitates generally greater discretion in determining the annual pension cost and pension liability than international practice. While it was not possible to provide evidence consistent with the proposition that such discretion is used to 'income smoothe' (as the informal

interviews might have suggested), Italian practice was found to be consistent with a strategy to enhance management salary bargaining strength through an undue inflation of personnel costs, and to facilitate concealment of related party transactions between the banks and a pension fund. This occurred, notwithstanding that the law requires pension fund resources to be kept completely separated.

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Harmony, Statistical Inference with the Herfindahl H Index and C Index

The Herfindahl H index and C index provide measures of harmony of accounting measurement practices by summarizing the extent to which companies use the same accounting practice. While the values of these indices are compared to obtain some idea concerning the relative harmony of accounting practice, standard errors for these estimates are not generally provided. That is, an index is calculated from a sample but no guidance is provided concerning likely values of the index in the population from which the sample was drawn. The present article fills this gap in the literature by providing formulae to estimate the standard error of the H and C indices calculated from a sample. The formulae are illustrated with several examples from the literature to show how conclusions are either enhanced or modified by the addition of these standard errors. It is shown that while both indices are biased, this bias is generally negligible. It is hoped that in future authors will quote not only the value of the index itself but also the standard error so differences between index values (both within and between studies) can be judged as being either significantly different or explainable by sampling variation alone.

Van der Tas (1988), in response to many organizations concerned with the issue of harmonization of financial reporting (including the U.K. Accounting Standards Committee, the U.S. Financial Accounting Standards Board, the International Accounting Standards Committee and the European Union), suggests quantifying the degree of harmony of financial reporting practices with the Herfindahl index (H index). He also suggests the C index as an alternative to the H index. For international harmonization, van der Tas (1988) points out that the degree of harmony can be quantified with either the H index or the C index by simply ignoring the country a company is from and treating all the companies as coming from a single population. As an alternative, he also suggests an I index which makes a comparison between the relative frequencies of accounting methods used within the different countries, but Herrmann and Thomas (1995) note problems with the sensitivity of this index to relative frequencies of 0. Archer and McLeay (1995) suggest a modified I index that represents a better generalization of the I index;

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however, this also suffers from problems of relative frequencies of 0. Archer *et al.* (1995) explore the mathematics of the C index and show how it can be decomposed into within-country and between-country comparability indices. Pierce and Weetman (2000) explore the consequences of non-disclosure on indices of harmony.

Tay and Parker (1990) state '[t]he main problem with concentration indices is that no significance tests have been devised to indicate how trivial or significant (statistically) variations in index values are'. That is, when we have several values of an index calculated under different circumstances (such as different indices for different countries), we cannot be sure that any observed difference is due to different degrees of harmony or whether it could be due to sampling variation. Van der Tas (1992) accepts this criticism. Indeed, while there is some argument in the literature over which index is superior, there appears to be general agreement over the need for statistical significance tests of these indices (see Tay and Parker, 1990, 1992; van der Tas, 1992).

Here, a solution to this problem is proposed by providing formulae for the standard error of the H index and C index. These formulae avoid the necessity to perform computer intensive bootstrapping such as those adopted by Canibano and Mora (2000). Also, this article shows that while both indices are biased, the bias of the H index is negligible in moderate to large samples and the bias of the C index is negligible in moderate to large populations. These results are used to add standard errors to figures that van der Tas (1988) used to illustrate trends in the H index and some conclusions of van der Tas are re-examined in this light. The results are then applied to data from Herrmann and Thomas (1995) on the level of harmony of accounting measurement practices in the European Union. The purpose of this article is not to provide a critique of the various harmonization indices but to note that the H and C indices can both be used to measure national and international harmony (van der Tas, 1988). Results are only reported for the H index here because results for both indices are similar.

Archer *et al.* (1996) propose another approach with a statistical model of harmonization which they show is related to the C index. Their concept of harmony is different and more concerned with whether the distribution of accounting methods used is the same for each country rather than whether companies use the same method. Furthermore, they concentrate on statistical hypothesis testing while here we quantify the accuracy of our estimates of the level of harmony with standard errors.

STATISTICAL INFERENCE FOR THE HERFINDAHL INDEX

Notation

The Herfindahl index for a sample of n companies is given by

$$H = \sum_{i=1}^{M} p_i^2 \tag{1}$$

where H = Herfindahl index,
M = the number of accounting methods, and
p_i = the relative frequency in the sample of accounting method i.

Usually equation (1) is applied to the relative frequencies p_i calculated from a sample of companies; however, it could also be calculated from the relative frequencies of all the companies in the population. This latter value is referred to as the population Herfindahl index and denoted by H_p. It is given by

$$H_p = \sum_{i=1}^{M} \pi_i^2 \tag{2}$$

where π_i = the relative frequency in the population of accounting method i.

Thus H_p and π_i correspond to H and the p_i but relate to the accounting methods used by all the companies in the population and not just the companies in the sample.

The calculation of the H index from a sample of companies is viewed as an attempt to measure the Herfindahl index for the population of companies from which this sample is selected. This suggests two important questions which are now answered. Firstly, can the value of the H index calculated from such a sample be expected to be close to the population Herfindahl index H_p, and secondly, how close can one expect it to be? These questions are answered below by deriving formulae for the bias and standard error of the Herfindahl index H.

Bias

The expected value of the Herfindahl index is derived in Appendix A to be

$$E(H) = \sum_{i=1}^{M} \pi_i^2 + \sum_{i=1}^{M} \pi_i(1 - \pi_i)/n \tag{3}$$

where $E(*)$ denotes the expectation operator. Since the first summation in this expression is equal to the population Herfindahl index H_p, the bias of H is given by

$$\sum_{i=1}^{M} \pi_i(1 - \pi_i)/n = (1 - H_p)/n\,. \tag{4}$$

Note that since $H_p \leq 1$ the bias is positive (except for the trivial case where $H_p = 1$, in which case H is unbiased). Thus, on average, the sample Herfindahl index H is greater than the population Herfindahl index H_p. Although this bias is higher when H_p is smaller, it can never be greater than $1/n$, suggesting that the bias will be negligible in moderate to large samples. For example, for a sample of fifty companies, the bias associated with H must be at most 0.02. This small bias suggests that on average the sample Herfindahl index will be close to the population Hefindahl index, so now let us examine how close the sample and population H indices are likely to be.

Standard Error

The variance of the sample Herfindahl index H is derived in Appendix B to be

$$\sigma_H^2 = \sum_{i=1}^{M} a_i + 2\sum_{i=1}^{M}\sum_{j=1}^{i-1} b_{ij} - (E(H))^2 \tag{5}$$

where

$$a_i = (\pi_i + 7(n-1)\pi_i^2 + 6(n-1)(n-2)\pi_i^3 + (n-1)(n-2)(n-3)\pi_i^4)/n^3 ,$$

$$b_{ij} = ((n-1)(n-2)(n-3)\pi_i^2\pi_j^2 + (n-1)(n-2)\pi_i\pi_j(\pi_i + \pi_j) + (n-1)\pi_i\pi_j)/n^3 ,$$

and $E(H)$ is given by equation (3).

The standard error of H, σ_H, is given by the square-root of its variance, $\sigma_H = \sqrt{\sigma_H^2}$.

Although this formula for the standard error of the H index depends on the relative proportions in the population, π_i, an accurate estimate of the standard error can be obtained by substituting the sample proportions p_i for π_i in the expressions for a_i and b_{ij}. The resulting estimate of the standard error is accurate, especially in large samples, because p_i is an unbiased estimate of π_i (in much the same way as sample standard deviations are used to estimate standard errors of the sample mean even though the formula for the standard error of the sample mean involves the population standard deviation and not the sample standard deviation).

STATISTICAL INFERENCE FOR THE C INDEX

Notation

The C index for a sample of n companies is given by

$$C = \frac{\sum_{j=1}^{J} x_j(x_j - 1)}{n(n-1)} \tag{6}$$

where x_j is the number of companies using accounting method j.

Unlike the case of the Herfindahl index, the population C index—calculated using formula (10) but with x_j and n calculated using the corresponding numbers of companies in the population—depends not only on the relative frequencies π_i of companies in the population using each accounting method, but also on the number of companies in the population.

The expected value of the C index is derived in Appendix C to be

$$E(C) = C_p + (1 - C_p)/N$$

where C_p is the population C index and N is the number of companies in the population. Hence the C index is a biased estimate of the population C index with bias equal to $(1 - C_p)/N$. Thus, on average, the sample C index is greater than the population C index. However this bias will be negligible for moderate to large populations.

The variance of the sample C index is derived in Appendix D to be

$$\sigma_C^2 = \frac{1}{n^2(n-1)^2}\left(\sum_{j=1}^{J} a_j + \sum_{j=1}^{J}\sum_{k\neq j} b_{jk}\right) - \left(\sum_{j=1}^{J} \pi_j^2\right)^2$$

where

$$a_j = n(n-1)\pi_j^2((n-2)(n-3)\pi_j^2 + 4(n-2)\pi_j + 2)\,,$$

$$b_{jk} = n(n-1)(n-2)(n-3)\pi_j^2\pi_k^2\,,$$

and π_j = the relative frequency in the population of accounting method j.
The standard error of C, σ_C, is given by the square-root of its variance, $\sigma_C = \sqrt{\sigma_C^2}$.
Although the population proportions π_j are generally unknown, an accurate approximation to the standard error for the C index can be obtained by substituting the sample proportions.

ADDITION OF STANDARD ERRORS TO EXAMPLES IN VAN DER TAS (1988)

The use of the H Index to measure harmonization of financial reporting was introduced and illustrated by van der Tas (1988). Here standard errors are added to two of these examples, example II, accounting for the WIR (investment tax credit) in the Netherlands, and example IV, the WIR equalization account in the Netherlands. Further details of these examples, including the raw data, are provided in van der Tas. Now standard errors are added to the figures of the H index in van der Tas to show how these either reinforce or suggest alternative conclusions to those made by van der Tas without the benefit of these standard errors.

Accounting for the WIR (Investment Tax Credit) in the Netherlands
Figure 1 shows the figure of the H index for the WIR in the Netherlands from van der Tas (1988) after ±2 standard error bars have been added using equation (5) above. It is noted that while van der Tas quotes H index values to three decimal places, the high standard errors of about 0.05 suggest that this overstates their accuracy.

Van der Tas (1988, p. 161) made the following final conclusions based on his figure without standard errors: '[t]he figure shows clearly a strong increase in the H index. The draft guideline had a slight impact on the degree of harmony at the very time when the process of harmonization stopped'. From the ±2 standard error bars on Figure 1 it is clear that this 'slight' increase in harmony from 1983 to 1984 is also statistically insignificant. The evidence of a strong increase in harmony is, however, perhaps not as strong as one may be led to believe without the standard errors. Indeed, the statistical evidence that the H index in 1984 is greater than any year other than 1978 is statistically insignificant. Thus the standard errors on

FIGURE 1

H INDEX (WITH ±2 STANDARD ERROR BARS) FOR THE WIR IN THE NETHERLANDS AS DESCRIBED IN VAN DER TAS (1988)

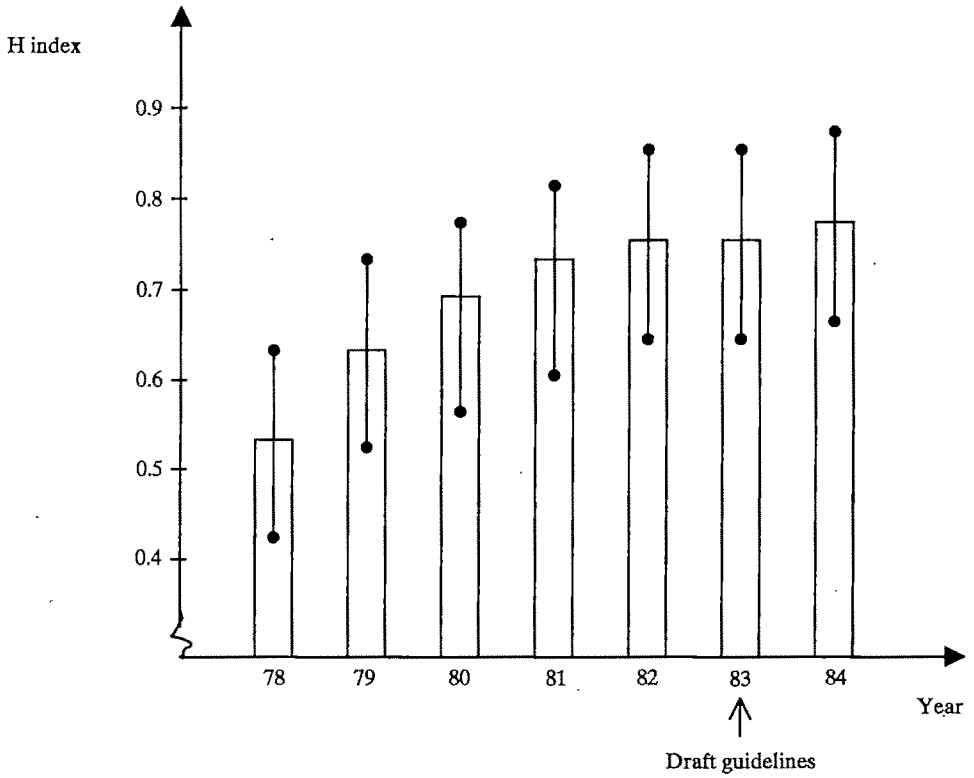


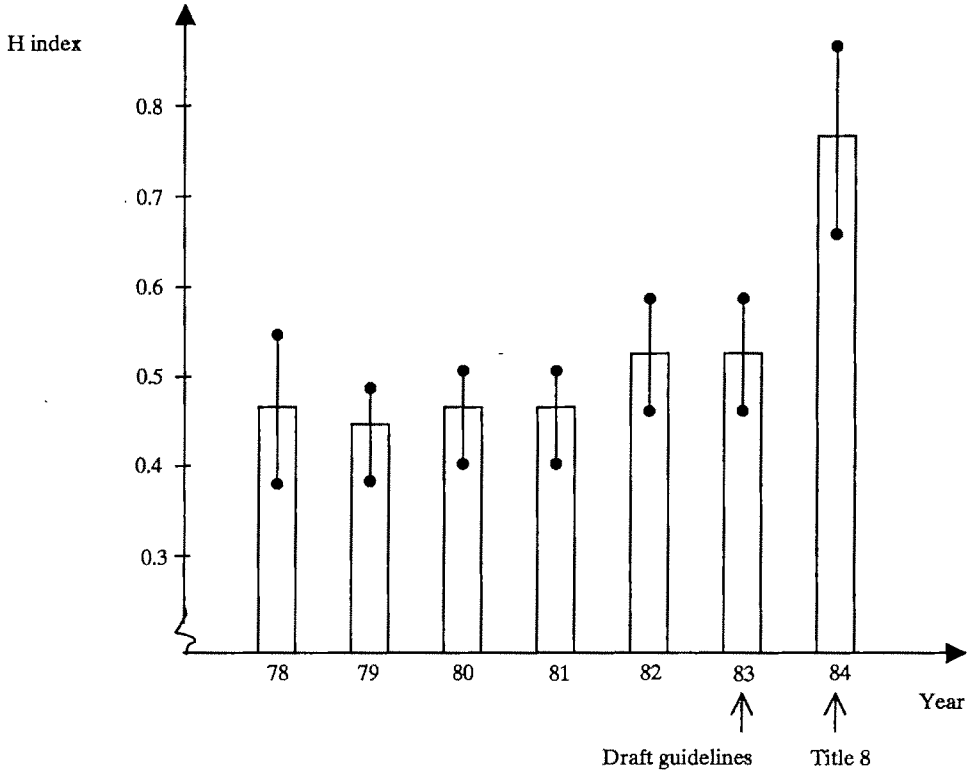
Figure 1 do not provide statistical justifications of the conclusions by van der Tas but suggest alternative explanations.

Accounting for the WIR Equalization Account in the Netherlands

Figure 2 shows the figure of the H index for the WIR equalization account in the Netherlands from van der Tas (1988) after ±2 standard error bars have been added using equation (5) above. Van der Tas made the following final conclusions based on his figure without standard errors: 'the fluctuations of the H index are plotted, showing a slight increase from 1978 to 1983 and a big increase in 1984, caused by the new legislation' (p. 163). From the ±2 standard error bars on Figure 2 it is clear that the 'big increase' in 1984 is statistically significant and unlikely to be the result of sampling variation alone. The 'slight increase from 1978 to 1983', however, is statistically insignificant and so this difference in the index values for 1978 and 1983 could be the result of sampling variation and not

FIGURE 2

H INDEX (WITH ±2 STANDARD ERROR BARS) FOR THE WIR EQUALIZATION ACCOUNT IN THE NETHERLANDS AS DESCRIBED IN VAN DER TAS (1988)



a change in harmony in the population. Thus the standard errors on Figure 2 provide statistical justification for the statements made by van der Tas.

COMPARISON OF FAIRNESS AND LEGALISTIC EUROPEAN COUNTRIES

Herrmann and Thomas (1995) examined the level of accounting harmony in Belgium, Denmark, France, Germany, Ireland, the Netherlands, Portugal and the U.K. They did so by examining the 1992/93 annual reports of some companies from these countries and concluded in their abstract that: '[t]he results also demonstrate that the extent of harmonization is greater among fairness oriented countries than amongst legalistic countries'. They reached this conclusion by comparing the average four-country I index for the fairness countries (Denmark, Ireland, the Netherlands and the U.K.) of 0.7945 with the average four country I

index for the legalistic countries (Belgium, France, Germany and Portugal) of 0.5501. These averages were taken over the nine accounting practices they considered. No attempt was made to examine whether these values are significantly different in a statistical sense.

A more rigorous statistical treatment of this data is now provided by comparing the Herfindahl index for the companies from the fairness countries with the Herfindahl index for the companies from the legalistic countries for each of the nine accounting practices. By calculating the standard errors for these values it is possible to determine when the level of harmony in the fairness countries is significantly different to the level in the legalistic countries. When the difference is not statistically significant one must accept that the observed differences could be explained as sampling variation due to the fact that we have only examined a small number of companies and not all the companies in the population. Doing so leads to general agreement with the above conclusion of Herrmann and Thomas (1995), although examining each accounting practice separately adds additional insights into the level of harmony within these two groups of countries. By computing the H index for companies in either the group of fairness countries or the group of legalistic countries, harmony is defined as the extent to which companies within either group use the same method. Using the I index or between country C index emphasizes the comparison of companies in different countries at the expense of harmony within countries. The H index provides a measure of the overall harmony of companies within each group.

Table 1 provides summary data for the nine accounting practices. For example, the value H = 0.51 for fixed asset valuation within the fairness countries was calculated from the observation that fifty of the companies from the fairness countries of Denmark, Ireland, the Netherlands and the U.K. used the historical cost method while the remaining sixty-four used the modified historical method (these data can be obtained directly from Table 1 of Herrmann and Thomas, 1995). This gives relative proportions of $p_1 = 50/114 = 0.439$ and $p_2 = 64/114 = 0.561$. These values, together with the total number of companies $n = 114$, yield the Herfindahl index from equation (3) and its standard error through equation (5). Table 1 also indicates whether the Herfindahl index for the fairness countries is significantly larger (>), significantly less (<), or insignificantly different ($\approx$) from the Herfindahl index for the legalistic countries.

For five of the nine accounting practices (depreciation, research and development, inventory costing, foreign currency translation of assets and liabilities, and treatment of translation differences) it is clear from the standard errors that the value of the Herfindahl index is significantly higher for the fairness countries compared to the legalistic countries. That is, if the population Herfindahl indices for these two groups of countries had been equal then it would be very unlikely for the sample Herfindahl indices to be as different as they were.

The accounting practice of foreign currency translation of revenues and expenses is atypical in that the level of harmony is also significantly different, but in this case the companies from the fairness countries are significantly *less* harmonized. As noted by Herrmann and Thomas (1995), 80 per cent of companies from

TABLE 1

HERFINDAHL INDICES, THEIR STANDARD ERRORS AND A STATISTICAL COMPARISON OF THE FAIRNESS COUNTRIES AND LEGALISTIC COUNTRIES AS DESCRIBED IN HERRMANN AND THOMAS (1995)

Measurement practice	Fairness countries		Statistical	Legalistic countries	
	H index	*SE*	comparison[a]	H index	*SE*
Fixed asset valuation	0.51	0.013	<	0.59	0.037
Depreciation	0.95	0.028	>	0.53	0.025
Goodwill	0.80	0.048	≈	0.81	0.051
Research and development	0.86	0.056	<	0.51	0.027
Inventory valuation	0.74	0.051	≈	0.75	0.049
Inventory costing	0.61	0.085	>	0.29	0.021
Foreign currency translation of assets and liabilities	0.98	0.019	>	0.73	0.052
Foreign currency translation of revenues and expenses	0.54	0.027	<	0.82	0.051
Treatment of translation differences	0.94	0.033	>	0.75	0.054

[a] The standard error of the difference in the H indices is the square root of the sum of the squares of the standard errors of the indices. The statistical comparison compares the difference in the H indices with two standard errors of this difference.

Denmark used the current method while, at most, 33 per cent of the companies from any of the other countries used this method. Excluding Denmark from the fairness countries, however, only raises the H index from 0.54 to 0.64 ($SE = 0.051$) which is still significantly lower than the index value of 0.82 ($SE = 0.051$) for the legalistic countries. Thus Denmark alone cannot explain the lack of harmony in the fairness countries compared to the legalistic countries.

While the sample Herfindahl index values for goodwill and inventory valuation are lower for the fairness countries, these are only 0.01 lower than the corresponding values for the legalistic countries. This is much smaller than the magnitudes of the standard errors and so one can conclude that this difference can easily be explained by sampling variation. These data are consistent with the level of harmony among fairness countries being equal to the level of harmony among legalistic countries for goodwill and inventory valuation.

The level of harmony of fixed asset valuation among fairness countries (H = 0.51, $SE = 0.013$) is lower than among legalistic countries (H = 0.59, $SE = 0.037$). This difference of 0.08 in the indices has a standard error given by the square-root of the sum of the squares of the two standard errors, $\sqrt{0.013^2 + 0.037^2} = 0.039$, and so this difference is just over two standard errors away from zero. Thus, while close, there is a suggestion that you would not expect these two sample Herfindahl indices to be this different if the population Herfindahl indices for fixed asset valuation were in fact equal. The evidence that the level of harmony of

fixed asset valuation in the fairness countries is less than the legalistic countries is, however, marginal compared to the strong evidence for translation of revenues and expenses.

Finally, we emphasize the difference between our comparison of harmony through the Herfindahl index and the chi-squared test for independence through the example of goodwill. The chi-squared test for independence provides a highly significant result ($\chi^2 = 115$, $P < 0.001$) while the difference in the sample Herfindahl indices (0.80 for the fairness countries and 0.81 for the legalistic countries) is clearly insignificant when compared with the standard errors in Table 1. This occurs because while the level of harmony in the two groups is similar, the choice of method is significantly different between the two. In the sample, 81 per cent (89/110) of the companies in the fairness countries used the write-off method rather than capitalize, but the corresponding proportion for the legalistic countries is only 11.5 per cent (9/78). While this difference represents a lack of harmony between the two groups of companies, and is likely to be of interest, it also represents a similar level of harmony within the two groups of companies. Thus the chi-squared test is not suitable for comparing the level of harmony in different countries.

DISCUSSION

Harmonization indices are routinely calculated and reported to summarize the level of harmony of accounting measurement practices. Although typically not stated explicitly, these are usually based on a sample of companies rather than all the companies in the population of interest. In distinguishing between the index based on the sample and the index based on the population, it has been shown how the sample H and C indices are biased estimates of their corresponding population indices but that this bias is typically negligible. While not surprising, it is of comfort to know that the indices based on a sample will, on average, be close to the value of the indices in the population.

Also provided was a formula for the standard error of the sample H and C indices which provides a numerical assessment of how close one can expect the sample index to be to the population index. This is of immediate interest because it provides an assessment of the accuracy of any chosen sample to estimate the level of harmony in a population of companies. It also allows comparisons statistically of the levels of harmony in two or more different populations. The article also shows how conclusions concerning harmony in the literature can be reinforced or modified when standard errors are added to values for the Herfindahl index.

The lack of methodology to address the question of the statistical significance of harmonization indices of accounting measurement practices has been discussed at length in the recent literature as one of the major problems with the use of these indices. By presenting a solution to this problem it is hoped that in future, standard errors will routinely be presented along with the value of the index itself so that the statistical significance of these results can be more readily obtained. This will not only enhance the paper in which the index value is reported, but will also enable readers to make more informed comparisons between index values

reported in different papers for different situations, such as different countries or accounting issues.

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APPENDIX A

To derive equation (3) first derive the expected value of p_i^2, the square of the relative frequency of method i in the sample. From equation (4.2) on page 51 of Johnson and Kotz (1969),

$$E(X_i^2) = n\pi_i + n(n-1)\pi_i^2$$

where X_i is the frequency of companies in the sample using accounting method i. Note that we have used the fact that the marginal distribution of X_i is binomial (see Johnson and Kotz, 1969, p. 281) but this result also follows from their equation (10) on page 284. Since $p_i = X_i/n$,

$$E(p_i^2) = \pi_i/n + (n-1)\pi_i^2/n = \pi_i^2 + \pi_i(1-\pi_i)/n$$

and hence, since taking expectations is a linear operator (equation 91; Johnson and Kotz, 1969, p. 17),

$$E(H) = E\left(\sum_{i=1}^{M} p_i^2\right) = \sum E(p_i^2) = \sum_{i=1}^{M} \pi_i^2 + \sum_{i=1}^{M} \pi_i(1-\pi_i)/n$$

as required.

APPENDIX B

To derive equation (5) use the definition of the variance of H, $\sigma_H^2 = E(H^2) - (E(H))^2$, and note that

$$E(H^2) = E\left(\left(\sum_{i=1}^{M} p_i^2\right)^2\right) = \sum_{i=1}^{M} E(p_i^4) + \sum_{i=1}^{M}\sum_{j\neq i} E(p_i^2 p_j^2) = \sum_{i=1}^{M} E(p_i^4) + 2\sum_{i=1}^{M}\sum_{j=1}^{i-1} E(p_i^2 p_j^2)$$

where this last equality follows from the fact that $E(p_i^2 p_j^2) = E(p_j^2 p_i^2)$. Comparing with equation (5), it suffices to show that $E(p_i^4)$ equals the expression for a_i and that $E(p_i^2 p_j^2)$ equals the expression for b_{ij}.

From equation (4.4) on page 51 of Johnson and Kotz (1969),

$$\begin{aligned} E(X_i^4) &= E(X_i^{(1)}) + 7E(X_i^{(2)}) + 6E(X_i^{(3)}) + E(X_i^{(4)}) \\ &= n\pi_i + 7n(n-1)\pi_i^2 + 6n(n-1)(n-2)\pi_i^3 + n(n-1)(n-2)(n-3)\pi_i^4 \end{aligned}$$

and dividing by n^4 you obtain

$$E(p_i^4) = (\pi_i + 7(n-1)\pi_i^2 + 6(n-1)(n-2)\pi_i^3 + (n-1)(n-2)(n-3)\pi_i^4)/n^3$$

which is the expression for a_i.

Equation (10) on page 284 of Johnson and Kotz (1969) states that the expectation of

$$x_1^{(r_1)} \times x_2^{(r_2)} \times \ldots \times x_J^{(r_J)} \text{ is } E(x_1^{(r_1)} \times x_2^{(r_2)} \times \ldots \times x_J^{(r_J)}) = n^{(\Sigma r_j)} \times \pi_1^{r_1} \times \pi_2^{r_2} \times \ldots \times \pi_J^{r_J},$$

where $$y^{(r)} = y \times (y-1) \times \ldots \times (y-r+1).$$

Using this result (several times):

$$\begin{aligned} E(X_i^2 X_j^2) &= E(X_i(X_i-1)X_j(X_j-1)) + E(X_i X_j(X_j-1)) \\ &\quad + E(X_i(X_i-1)X_j) + E(X_i X_j) \\ &= E(X_i^{(2)}X_j^{(2)}) + E(X_i^{(1)}X_j^{(2)}) + E(X_i^{(2)}X_j^{(1)}) + E(X_i^{(1)}X_j^{(1)}) \\ &= n(n-1)(n-2)(n-3)\pi_i^2\pi_j^2 + n(n-1)(n-2)\pi_i\pi_j^2 \\ &\quad + n(n-1)(n-2)\pi_i^2\pi_j + n(n-1)\pi_i\pi_j \end{aligned}$$

so dividing by n^4 produces:

$$\begin{aligned} E(p_i^2 p_j^2) = ((n-1)(n-2)(n-3)\pi_i^2\pi_j^2 + (n-1)(n-2)\pi_i\pi_j^2 \\ + (n-1)(n-2)\pi_i^2\pi_j + (n-1)\pi_i\pi_j)/n^3 \end{aligned}$$

which equals the expression for b_{ij}.

APPENDIX C

Using the result stated in Appendix A from Johnson and Kotz, the fact that the expected number of companies using method j is $N\pi_j$, and $\pi_j = N_j/N$ where N_j is

the number of companies in the population using method j, the expected value of the C index is

$$E(C) = \frac{1}{n(n-1)} \sum_{j=1}^{J} (E(X_j(X_j - 1))) = \frac{1}{n(n-1)} \sum_{j=1}^{J} (E(X_j^2) - E(X_j))$$

$$= \frac{1}{n(n-1)} \sum_{j=1}^{J} (n\pi_j + n(n-1)\pi_j^2 - n\pi_j) = \sum_{j=1}^{J} \pi_j^2$$

$$= \frac{N-1}{N}\left(\frac{N}{N-1}\left(\sum_{j=1}^{J} (N_j/N)^2 - \frac{1}{N}\right)\right) + \frac{1}{N}$$

$$= \frac{N-1}{N} C_p + \frac{1}{N} = C_p + (1 - C_p)/N \text{ since}$$

$$C_p = \frac{1}{N(N-1)} \sum_{j=1}^{J} N_j(N_j - 1) = \frac{1}{N(N-1)}\left(\sum_{j=1}^{J} N_j^2 - \sum_{j=1}^{J} N_j\right)$$

$$= \frac{N}{N-1}\left(\sum_{j=1}^{J} (N_j/N)^2 - \frac{1}{N}\right).$$

APPENDIX D

Since

$$\sigma_C^2 = E(C^2) - (E(C))^2 \text{ and } E(C) = \sum_{j=1}^{J} \pi_j^2 \text{ and}$$

$$E(C^2) = \frac{1}{n^2(n-1)^2} E\left(\left(\sum_{j=1}^{J} x_j(x_j - 1)\right)^2\right)$$

$$= \frac{1}{n^2(n-1)^2}\left(\sum_{j=1}^{J} E[x_j^2(x_j - 1)^2] + \sum_{j=1}^{J}\sum_{k \neq j} E[x_j x_k(x_j - 1)(x_k - 1)]\right)$$

it suffices to show that the expression for a_j equals $E[x_j^2(x_j - 1)^2]$ and the expression for b_{jk} equals $E[x_j x_k(x_j - 1)(x_k - 1)]$.

Using $r_j = r_k = 2$ in equation (10) on page 284 of Johnson and Kotz (1969) gives $E(x_j x_k(x_j - 1)(x_k - 1)) = b_{jk}$. Furthermore, $E(x_j^2(x_j - 1)^2) = E(x_j^{(4)}) + 4E(x_j^{(3)}) + 2E(x_j^{(2)})$ which after multiple application of the result in Johnson and Kotz (1969) equals the expression for a_j.

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JAYNE GODFREY, PAUL MATHER AND ALAN RAMSAY

Earnings and Impression Management in Financial Reports: The Case of CEO Changes

This article examines earnings management, as well as the presentational format of graphs (impression management) in the financial reports of sixty-three Australian listed public companies that changed chief executive officers (CEOs). Prior U.S. evidence generally suggests downward earnings management in the year of senior management changes and upward earnings management in the following year (Pourciau, 1993). We argue that new managers not only have incentives to manage earnings but also have similar incentives to manipulate the impressions created by graphs in financial reports. Examining earnings and impression management at the same time also provides an opportunity to distinguish between alternative explanations for any observed earnings management. In the year of CEO change, we hypothesize and find evidence of downward earnings management and some limited evidence of unfavourable impression management of the key financial variables (KFVs) graphed. As posited, we find evidence of upward earnings management and some evidence of favourable impression management in the year after a CEO change. These results are strongest for the subsample in which the CEO change was prompted by a resignation rather than a retirement.

Key words: CEO changes; Earnings management; Graphs; Impression management.

Anecdotal and empirical evidence suggest downward earnings management in the year of a chief executive officer (CEO) change and upward management in the following year. The context-specific evidence from the U.S. is generally consistent with incoming CEOs 'taking a bath' (Strong and Meyer, 1987; Elliott and Shaw, 1988; Murphy and Zimmerman, 1993; Pourciau, 1993). This may allow the new management team to attribute poor performance to its predecessors, support claims of being better managers, and establish a low base for executive compensation

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tied to reported earnings. In this article it is argued that new CEOs not only have incentives to manage earnings but also have similar incentives to manage the impressions created by graphs in financial reports (impression management). Hence, earnings and impression management are examined in the financial reports of Australian listed public companies making CEO changes. The specific research questions are: (a) do managers engage in downward earnings management and unfavourable impression management in financial reports in the year of a CEO change? and (b) do managers engage in upward earnings management and favourable impression management in the year after the change?

Apart from Wells (2002), who studies earnings management only, it appears that there is no academic research focusing upon the financial reporting around Australian CEO changes. However, the Australian financial press illustrates the perception that, in practice, such earnings management at the time of CEO changes is considered routine:

> 'We are disappointed on the costs,' said one analyst. 'They have brought forward a lot of expenses this year to make it easier for the new CEO over the next two years.'[1]

> Newly installed Woolworths Ltd chief executive Mr Roger Corbett has dismissed market speculation that the company's flat half-year result released last week was understated as a way to discredit the company's former boss Mr Reg Clairs.[2] A companion article states, 'I don't think the old management would have reported this result'.[3]

> The newly appointed CEO does not want to be burdened by a predecessor's decisions—and the lower the start point, the better subsequent performance will appear. If the write downs are too severe, there are always ways of bringing them back as profit, and making the new management look all the better.[4]

Impression management (Neu, 1991) is a strand of the financial disclosure literature that examines managers' attempts to manage the interpretation of financial reports. It occurs when management selects the information to display and presents that information in a manner that is intended to distort readers' perceptions of corporate achievements. A significant aspect of this literature is the communication of financial and other information via graphs. There has been extensive research into the choice of graphs to be included in annual reports and into distortion in the construction of these graphs (e.g., Steinbart, 1989; Beattie and Jones, 1992, 1999, 2000a, 2000b; Mather *et al.*, 1996; Frownfelter and Fulkerson, 1998). More recent work extends to the investigation of graphs in other financial reports, such as IPO prospectuses (Mather *et al.*, 2000). In general, these studies present evidence that the choice of graphs and distortion of graphs in financial reports give a favourable impression of management's performance.

[1] *Australian Financial Review*, 20 November 1997, p. 1.

[2] *Business Australian*, 24 February 1999, p. 28.

[3] *Business Australian*, 24 February 1999, p. 28.

[4] *Business Australian*, 24 April 2000, p. 32.

A theory of the management of corporate financial disclosure (Gibbins *et al.*, 1990) sees a firm's disclosure outputs as a function of several variables including the firm's internal structure and politics, and illustrates the key role played by the CEO in determining a firm's disclosure position:

> It was often clear that management's attitudes towards disclosure reflected the CEO's attitudes.[5]

> [D]isclosure position is influenced by (and may influence) several internal organizational factors, such as the firm's history, its financial performance, the personality and preferences of its CEO.[6]

A problem with the prior, context-specific earnings management research is that it has been unable to distinguish between management opportunism and accurate reporting of firms' underlying economic performance (requiring recognition of necessary write downs) as explanations for results obtained (see Dechow and Sloan, 1991). Any manipulation of graphs, however, suggests opportunism rather than accurate reporting. We therefore argue that if there is evidence consistent with both the hypothesized earnings and impression management behaviour in the periods surrounding CEO change, then the additive nature of this evidence supports opportunism as an explanation.

It is hypothesized that downward earnings management will occur in the year of a CEO change. Also, managers are predicted to choose key financial variables (sales, profit, earnings per share and dividends) to be graphed and to distort the graphs of these key financial variables (KFVs) to give an unfavourable impression in that year. In the year of CEO change, evidence of downward earnings management is found but, apart from some joint tests, there was no evidence of unfavourable selectivity in the choice of KFVs graphed, or of unfavourable distortion. As posited, there was evidence of upward earnings management and the choice of KFVs graphed to give a favourable impression in the year after a CEO change, but we find no evidence of favourable graph distortion. Further analysis by partitioning our sample according to the circumstances of the CEO change (retirement or resignation) and according to firm size indicates that earnings management and impression management are strongest for the sub-sample where the CEO change was due to a resignation. We also develop and apply some joint tests of earnings and impression management to provide a more direct link between the two. None of the joint tests involving distortion is significant; however, there is some evidence that earnings management and selectivity are directly associated.

To our knowledge, this is the first study to examine impression management in the context of CEO change. It is also the first study to link the earnings and impression management literature. Accordingly, this study contributes to the literature exploring context-specific incentives for earnings management, impression management and the role of accounting in corporate contracting.

[5] Gibbins *et al.* (1990, p. 131).

[6] Gibbins *et al.* (1990, p. 139).

HYPOTHESIS DEVELOPMENT

Theoretical Framework

Jensen and Meckling (1976) describe the agency costs arising from the incentives managers may have to engage in opportunistic (self-interested) wealth maximizing behaviour at the expense of shareholders. Within this framework, there are several incentives for new CEOs to manage accounting information.

Tenure and the Value of Human Capital New CEOs have incentives to increase their welfare by establishing tenure. Fama (1980) points out that managers rent a substantial part of their wealth, in the form of their human capital, to the firm. The internal and external labour markets effectively revise the future remuneration of these managers, depending on the perceived success or failure of the firm they are managing. Accounting numbers can directly or indirectly influence the labour markets' perceptions of such success or failure. Accounting numbers can thereby directly or indirectly affect directors' and/or shareholders' decisions to renew or terminate CEO contracts. A new CEO wishing to take a 'big bath' in the year of change and manage earning upwards in the following year (or years)[7] is consistent with the desire to establish tenure and/or to maximize the value of his or her human capital.

Compensation Contracts There is a paucity of specific detail about bonus plans and other incentive schemes used by Australian firms. There is, however, some evidence to suggest that target based incentive plans are by far the most commonly used for Australian CEOs (Hay Management Consultants, 1998). Cash (as opposed to shares or share options) is the predominant form of payment under these plans, and being employed at the beginning of the period is a requirement of them. This would suggest that compensation is unlikely to motivate upward earnings management in the year of change but may provide such an incentive in the year after.

The Institutional Context of CEO Change

Vancil (1987) investigates the process of CEO change in large U.S. firms. He describes one common process of executive change as the 'relay process', which provides a smooth transition as control is handed gradually to the successor over a period of years. He describes another model of executive succession as the 'horse race'. There, several contenders for the CEO position are identified early and compete to determine who will become the next CEO.

Under the relay process, the incoming CEO is in a position to closely monitor the decisions of the outgoing CEO. Similarly, the outgoing CEO typically remains on the board of directors, and is able to monitor the actions of the new CEO.

[7] It is acknowledged that such behaviour may continue over a longer time horizon but, consistent with the prior literature, we confine our analysis to the year of, and the year after, change.

Such planned changes minimize the moral hazard problem and provide fewer incentives or opportunities for earnings management.

Often, however, the process of executive change is not orderly and planned. Pourciau (1993) distinguishes between routine and non-routine executive change. She argues that there are greater incentives and opportunities for earnings management in the case of nonroutine change.

According to Vancil (1987), CEOs face several critical tasks on appointment. Two of these are: (a) managing the expectations of the board and senior staff; and (b) earning the confidence of all stakeholders by achieving an initial, realistic set of performance goals in their first year or two as CEO. Pourciau (1993) argues that to manage expectations and set (and reach) achievable performance goals, the new CEO has strong incentives to engage in initial downward (profit decreasing) earnings management with subsequent upward (profit increasing) earnings management. Such a strategy sets an initial low benchmark against which performance is judged and, at the same time, increases the ability of the new CEO to subsequently manage earnings upwards. Alternatively, rather than such behaviour being opportunistic, the new CEO may deal with problems previously ignored by the old management. In other words, the new CEO is recording write-offs that should have been made by the previous management.

As there are many institutional differences between U.S. and Australian capital and labour markets, discussions were held with six senior managers or advisers (group of managers) who had first-hand experience of CEO change in Australia. These discussions were to enhance our understanding of the Australian institutional context and assist in development of the research design. More details are outlined in the Appendix. The views of this group of managers may be summarized as follows:

1. Earnings management at the time of CEO change (referred to as 'clearing the decks' or a 'big bath') is normal and expected;
2. Such earnings management takes place even where the new CEO is an internal appointee; and
3. The likelihood of such earnings management is significantly reduced where the departing CEO continues to serve the firm in some capacity, especially as chairman of the board.

Earnings Management

The financial disclosure literature emphasizes the incentives that management has for 'selective financial representation' (Revsine, 1991). One strand of this literature focuses on management manipulation of the underlying accounting numbers. As discussed earlier, a possible context for earnings management is senior management change. DeAngelo's (1988) investigation of earnings management during proxy contests in the U.S. finds that successful teams manage earnings downwards in the year of the takeover and report higher earnings the following year. This is used to support their claims of being better managers. Elliott and Shaw (1988) and Strong and Meyer (1987) report associations between discretionary write-offs

and senior management change in the U.S.[8] While their evidence supports the assertion that new managers seek to attribute poor results to their predecessors, Pourciau (1993) points out that the evidence is also consistent with the previous managers' failure to make these write-offs when they were necessary.

In their study of forty-three Australian takeover bids, Eddey and Taylor (1999) predict that directors who reject a bid use their discretion to manage current earnings upwards, in order to support their claim that the bid is inadequate. Similarly, they hypothesize that directors who accept a bid use their discretion to manage earnings downwards. They do not, however, find statistically significant evidence to support these hypotheses.

In an examination of a variety of financial variables surrounding CEO departures in the US, Murphy and Zimmerman (1993) estimate the extent to which managerial discretion explains changes in potentially discretionary variables. They conclude that changes in R&D, advertising, capital expenditures and accounting accruals are better explained by the overall economic performance of the firm than by outgoing CEOs exercising discretion. They do, however, find evidence consistent with incoming CEOs taking a big bath in the year of change.

From a sample of seventy-three CEO changes in the U.S., Pourciau (1993) finds empirical evidence consistent with the hypothesis that incoming CEOs manage accruals in a way that decreases earnings in the year of change and increases earnings in the following year. The most relevant study of earnings management is one that examines a sample of sixty-five CEO changes in Australia's top hundred ASX listed companies (Wells, 2002). Wells finds only weak evidence of negative unexpected accruals in the period of CEO change, but stronger evidence of earnings management through abnormal and extraordinary items. Contrary to his hypotheses, Wells also finds some evidence of negative earnings management in the period following the CEO change.

Impression Management

Impression management is a strand of the financial disclosure literature that examines management's attempts to manage the interpretation of financial reports (e.g., Gibbins *et al.*, 1990; Graves *et al.*, 1996). A significant aspect of the literature studying the content of communications between firms and their various stakeholders is concerned with the communication of financial and other information via graphs.

The effects of graphs on users' perceptions (e.g., Cleveland, 1985, Ch. 4; Lewandowsky and Spence, 1989) and the cognitive implications of presenting data in a graphical format (e.g., Kosslyn, 1985, 1989) are well documented. Moreover, prior accounting research has established that graphical presentation,

[8] Of firms making large discretionary write-offs, Elliott and Shaw (1988) find that 39 per cent of their sample had experienced senior management change in the period of the write-off. Similarly, Strong and Meyer (1987), using a research design involving matched paired samples, find that the most significant difference between non-write-off firms and write-off firms is the relatively high occurrence of senior management change in the write-off firms.

depending on the decision task and context, affects financial statement users' perceptions and decision making (e.g., Moriarty, 1979; Taylor and Anderson, 1986; Schulz and Booth, 1995). Complementing this research is a series of studies investigating the use of graphs in annual reports (e.g., in the U.S., Steinbart, 1989, and Frownfelter and Fulkerson, 1998; in the U.K., Beattie and Jones, 1992 and 2000a; in Australia, Mather *et al.*, 1996, and Beattie and Jones, 1999; inter-country comparison, Beattie and Jones, 2000b). Typically, this research examines the selective inclusion of graphs in annual reports and distortion of the graphs' construction.

Selectivity In the context of graphs, selectivity refers to the use of graphs and the choice of variables graphed. In particular, selectivity is concerned with whether the decision to include a graph, or a variable within a graph, is related to the firm's performance. Selectivity tests are tests of association between graph changes and performance. While suggestive, they do not necessarily establish management's intent. As in the prior literature, the unit of analysis in respect of selectivity is the graph rather than the firm. It could be argued that multiple instances of selectivity by the same firm do not represent independent cases of impression management. On the other hand, each decision to add or remove a graph is a separate decision, suggesting that each graph added or removed should be analysed. Further, focusing on the individual graph provides an assessment of the strength of impression management. For example adding three graphs that are all favourable to the firm is stronger impression management than adding one such graph. As it is possible for the same firm to make favourable and unfavourable graph changes, the main reason for using the graph as the unit of analysis is that selectivity can only be objectively operationalized at the graph level and it is unclear how a firm level analysis may be operationalized.

Steinbart (1989) finds that U.S. firms are more likely to include graphs of key financial variables (KFVs) when performance improves, although more recent work by Frownfelter and Fulkerson (1998) does not find such an association. Beattie and Jones (1992, 2000a) reach a similar conclusion to Steinbart (1989) in relation to U.K. annual reports. They find an association between the use of graphs of KFVs and performance of Australian firms based on a five-year trend (Beattie and Jones, 1999). Mather *et al.* (1996) also find evidence of selectivity in the presentation of graphs in annual reports of Australian firms, but only for the smaller firms in their sample.

Measurement Distortion Measurement distortion in graphs is concerned with whether the portrayed physical magnitude in the graph is proportionate to the numerical magnitude being represented. Steinbart (1989) investigates distortion in graphs of KFVs (identified as sales, profits and dividends) of 319 U.S. companies and finds that 'on average, graphs of the three variables exaggerated the magnitude of change by about 11%' (p. 63). He finds an absolute distortion of more than 10 per cent in approximately 26 per cent of the graphs, with overstatement and understatement being equally prevalent. In the U.K., Beattie and Jones

(1992) find that 30 per cent of graphs of KFVs (which include EPS as well as the three variables used by Steinbart) are distorted by more than 5 per cent, with exaggeration (22 per cent) being more prevalent than understatement (8 per cent). The Australian evidence is very similar. Mather *et al.* (1996), using a 5 per cent cut-off, find 29.7 per cent of graphs of key financial variables to be distorted, with exaggeration being slightly more prevalent than understatement. Beattie and Jones (1999) report similar results, but also present some evidence of other 'presentational enhancement'.

These U.K. and Australian studies have found significant favourable distortion (overstatement of a positive trend or understatement of a negative trend) but no evidence of significant unfavourable distortion (understatement of a positive trend or overstatement of a negative trend). Mather *et al.* (1996) find favourable distortion only among smaller firms.

In sum, these studies consistently find evidence of selectivity and favourable distortion of graphs in financial reports. Their evidence is consistent with the view that managers use financial reports in an opportunistic manner to present a self-serving view of corporate performance. It would follow that, aside from any earnings management, new CEOs have incentives to present the underlying information in a manner that allows them to attribute 'poor' performance to their predecessors and support *ex post* claims of being better managers.[9]

The motivation for earnings and impression management will vary with changes in a firm's circumstances. For example, capital market considerations could provide strong incentives for managing earnings upwards around transactions such as capital issues and mergers and acquisitions. Also, very little is known about the factors that might influence the strength and nature of impression management, generally or in these contexts. It is also possible that the accounting numbers are primarily aimed at more sophisticated users of annual reports while the graphs are primarily aimed at less sophisticated users.[10] However, we argue that in the context of CEO change, management (i.e., the CEO) has strong incentives to engage in negative earnings management in the period of CEO change and positive earnings management in the period following CEO change. We contend that this motivation outweighs any short-term capital market or other considerations. Moreover, firms cannot afford to have mixed messages transmitted to stakeholders, particularly as there is evidence that graphs affect financial report users' perceptions and decision making (Taylor and Anderson, 1986; Schulz and Booth, 1995). Remembering that the annual report contains both the accounting numbers and the key financial variable graphs to aid the interpretation of those

[9] There is no empirical evidence concerning whether it is the CEO or a graphic designer who makes the decision about inclusion of graphs in the annual report. However, given Gibbins *et al.* (1990), we argue that the CEOs' views are likely to be highly influential, whoever normally makes the specific decision.

[10] We are indebted to one of the referees for making these points.

numbers, management needs to ensure that the messages contained in these two forms of disclosure are reasonably consistent.

Accordingly, examining earnings and impression management together provides an opportunity to overcome the problem faced by the prior context-specific earnings management research in distinguishing between management opportunism and accurate reporting of firms' underlying economic performance (requiring recognition of necessary write downs) as explanations for results obtained. Since the manipulation of graphs suggests opportunism rather than accurate reporting, we argue that if there is evidence consistent with both the hypothesized earnings and impression management behaviour in the periods of and/or after CEO change, then the additive nature of this evidence supports opportunism as an explanation.

HYPOTHESES

Based on the above discussion, it is expected that a new CEO has incentives to engage in earnings and impression management that allows him or her to attribute poor performance to his or her predecessor and support, *ex post*, the claim of being a better manager. Accordingly, we predict unfavourable earnings and impression management in the reporting period of the CEO change (period t) and favourable earnings and impression management in the reporting period following the CEO change (period $t + 1$). Impression management encompasses both selectivity and distortion. Favourable (unfavourable) selectivity occurs when, in period t, a firm graphs a new KFV that portrays favourable (unfavourable) performance or chooses not to graph a KFV previously graphed in $t - 1$ that would have portrayed unfavourable (favourable) performance. As in most of the prior literature, the KFVs are defined as sales, profits, EPS and dividends. As such, exaggerations of upward trends of KFVs and understatements of downward trends are favourable to the firm, while understatements of upward trends and exaggerations of downward trends are unfavourable to the firm.

In the year of a change in CEO:

H1a: Firms report negative unexpected accruals.
H1b: Changes to specific KFVs graphed in the annual reports reflect unfavourable selectivity.
H1c: Graphical distortion of KFVs gives an unfavourable portrayal of the firm's performance.

In the year subsequent to a change in CEO:

H2a: Firms report positive unexpected accruals.
H2b: Changes to specific KFVs graphed in the annual reports reflect favourable selectivity.
H2c: Graphical distortion of KFVs gives a favourable portrayal of the firm's performance.

RESEARCH METHOD

Sample Selection

Table 1 summarizes the sample selection process. We identify CEO changes by using a keyword search of the *Australian Financial Review* database over the period 1992–98. In contrast, Wells (2002) examines changes over the period 1984–94 and his sample is confined to the top hundred Australian listed firms.

Of the 431 cites obtained from the keyword search, we eliminate 26 multiple cites for the same company and 41 instances where there is no CEO change. Examples of the latter are changes at a divisional level or where the person departing was not in fact the CEO. Another 188 are deleted as they are unlisted entities such as foreign firms, government agencies and other not-for-profit organizations, and 32 are deleted as the departing CEOs continue to serve the firm in some capacity, such as non-executive director or consultant. Finally, 81 are deleted for miscellaneous reasons enumerated in Table 1. The final sample consists of 63 firms. Contemporary newspaper reports and the company's annual report reveal that 19 of the sample are retirements and 44 are resignations. Our sample selection differs from Pourciau (1993), who eliminates all CEO retirements, and Wells (2002), who includes CEO changes where the outgoing CEO

TABLE 1

SAMPLE SELECTION: AUSTRALIAN CEO CHANGES 1992–98

Total cites from search of *Australian Financial Review*		431
Database deletions		
Multiple cites for same firm	26	
No CEO change[a]	41	
Not listed and/or takeover[b]	188	
Continued to serve firm[c]	32	
Miscellaneous[d]	81	
		(368)
Total sample		63

[a] No CEO change occurs, for example, where the change is only at divisional level or the departing executive is not in fact the CEO.

[b] Unlisted entities include proprietary (including foreign) companies, government agencies and other not-for-profit organizations. Changes resulting from a takeover or merger are also deleted.

[c] These are instances where the CEO remains on the firm's board of directors or continues to serve in some other capacity such as a consultant.

[d] The miscellaneous category includes overlapping changes (28), missing data (51) and extreme values (2). These two companies had values for NP/TA, CF/TA which exceeded +/–1.0 and are excluded from all analysis.

continues to serve the firm, but partitions his sample between those who continue or those who terminate their connection with the firm.[11]

For the purposes of the study, the year of change (t) is the first year the incoming CEO could realistically control the preparation of the accounting numbers and choices relating to the selection and construction of graphs in the annual report. We use a date three months after the financial reporting year-end date as the cut-off point. For instance, in the case of a firm with a 31 December year-end, 1997 would be considered to be the year of change if the new CEO commenced duties prior to 1 April 1998.[12]

Measuring Earnings Management

Accruals reflect the impact of changes in accounting estimates that underlie much of the accrual accounting process. We identify unexpected accounting accruals reflected in earnings released by firms during the period of a CEO change (t) and after a CEO change ($t+1$) as a means of detecting possible earnings management. Such unexpected accruals are a proxy for the discretionary component of reported earnings or the extent to which earnings management has occurred.

This approach is similar to DeAngelo (1986, 1988) and Eddey and Taylor (1999), according to which the accrual component of the earnings in respect of the reporting period being examined is compared with the accrual component of the earnings in respect of the prior reporting period. Each firm serves as its own control, with a critical assumption that expected accruals remain constant.[13] Unexpected accruals in year t may be expressed as follows:

$$AC_t = NP_t - CFO_t \quad (1)$$

$$\Delta AC_t = AC_t - AC_{t-1} \quad (2)$$

where AC_t = the accrual component of earnings in year t,
NP_t = net operating profit after interest and tax in year t,
CFO_t = cash flow from operations in year t, and
ΔAC_t = unexpected accruals in year t.

Unexpected accruals in year t is the difference between the change in net operating profit after interest and tax and the change in cash flow from operations, comparing year t to year $t-1$.

[11] The comments made by the group of managers were the reason for the slight differences in sample selection from Pourciau (1993) and Wells (2002). The managers stated that earnings management takes place even in the more orderly retirement/internal appointment situation but that the likelihood of earnings management is significantly reduced where the departing CEO continues to serve the firm in some capacity.

[12] This approach is consistent with Pourciau (1993). We also conduct sensitivity analysis using a range of alternative cut-off points. Refer to note 18 for an explanation of the effect on the results.

[13] The revenue, profit and total asset figures shown in Table 2 are relatively stable. Hence it is unlikely that substantial shifts in the firms' asset or financial structure could potentially explain any contemporaneous change in accruals.

CFO is extracted from cash flow statements prepared in accordance with AASB 1026, *Statement of Cash Flows*. This is in contrast to Dechow *et al.* (1995), Eddey and Taylor (1999) and Wells (2002) who estimate CFO using the indirect method as there were no statutory requirements to report cash flows during the periods they studied.[14] Using reported cash flows is likely to avoid measurement error that may arise from the reconstruction process (Collins and Hribar, 1999).

The measure of unexpected accruals has some limitations (Dechow *et al.*, 1995; Eddey and Taylor, 1999). First, if unexpected accruals vary with firm performance, and firm performance varies with the probability of CEO change, then the ensuing tests will be biased.[15] Second, there is the possibility of measurement error so the tests may lack sufficient power to detect earnings management.

An alternative method of measuring unexpected accruals that is used extensively in the literature is the regression method developed by Jones (1991). This method uses potential determinants of accounting accruals (i.e., sales, non-current assets) to estimate expected accruals and the resulting estimate of unexpected accruals. However, this approach requires a substantial time-series or cross-section of data as well as a stationarity assumption, as opposed to the first-differences approach used in DeAngelo (1986, 1988) and Eddey and Taylor (1999), which only assumes stationarity over two adjacent periods. Moreover, Dechow *et al.* (1995) find no evidence that the regression method systematically outperforms the first-differences method. However, they do point out that the DeAngelo method suffers from low power. Additionally, Guay *et al.* (1996) offer evidence that this method, in view of its low power, may not be effective in isolating discretionary accruals that are consistent with opportunism. They suggest that an exception may be non-random samples, such as ours, where management incentives are strong.

Selectivity

Selectivity refers to the use of graphs and the choice of variables graphed. In particular, selectivity is concerned with whether the decision to include or exclude a graph (or variable) is related to the company's performance. Most prior studies (such as Beattie and Jones, 1992, 1999; Mather *et al.*, 2000) test for selectivity using contemporaneous association. That is, the presence or absence of a graph of a KFV is tested for an association with performance across the sample. In this study, consistent with Beattie and Jones (2000a), we use information on each firm's choice of KFV graphs in $t-1$, t and $t+1$ to identify changes in the time series. These changes in the KFVs graphed are linked to the performance of the firm, representing a more direct indication of whether firms changing CEOs are selective in presenting graphs.

[14] AASB 1026, *Statement of Cash Flows*, became effective for accounting periods ending on or after 30 June 1992.

[15] This can occur, for example, where the unexpected accruals simply reflect management signalling unexpected performance (Healy and Palepu, 1993).

Measurement Distortion

The graphics literature provides several descriptively derived principles of graph construction and presentation. One such exposition is that of Tufte (1983) who states that: 'The representation of numbers, as physically measured on the surface of the graphic itself, should be directly proportional to the numeric quantities represented' (p. 77).

This principle is operationalized by Tufte (1983, p. 57) with a measure called the 'lie factor'. The measure was adapted slightly in an accounting setting (Taylor and Anderson, 1986, p. 135; Steinbart, 1989, p. 61) to produce the graph discrepancy index which is calculated as follows:

$$\textit{graph discrepancy index} = 100^{*}\ [(a/b) - 1]$$

where a = percentage change depicted in graph, and
b = percentage change in data.

As in prior research (e.g., Steinbart, 1989; Beattie and Jones, 1992, 1999, 2000b; Mather *et al.*, 1996; Mather *et al.*, 2000), we use the graph discrepancy index (GDI) to measure distortion.[16]

A GDI of zero per cent indicates that the graph has been properly constructed. A positive GDI indicates that the graph exaggerates the data trend and a negative GDI indicates that the graph understates the trend. Tufte (1983, p. 57) asserted that GDI values greater than +5 per cent or less than –5 per cent indicate that the graph is materially distorted and all prior studies examining distortion, except for Steinbart (1989), use this 5 per cent cut-off in their analysis.

RESULTS

Table 2 summarizes financial indicators for the sample of sixty-three firms that changed CEOs. It shows that the sample comprises both large and small firms. It also shows considerable skewness in the financial statistics, especially in the total assets measure, because of the inclusion of several large banks in the sample. As such, reliance on parametric tests of significance is problematic.

The data in Table 2 give a profile of the financial performance of firms changing CEO. On average, sample firms are profitable throughout the years $t-1$, t and $t+1$. However, the mean (and median) profit falls in year t and is less than that earned in years $t-1$ and $t+1$.

This financial performance profile contrasts with the profile of Pourciau's (1993) sample of U.S. firms changing CEOs. She finds that in year $t-1$ her sample firms are on average unprofitable (mean reported earnings [$468 000], median [$536 000]) and that they have mean (and median) returns on equity that are negative for all three years.

[16] Factors other than distortion may cause misperception of graphs. The Canadian Institute of Chartered Accountants (CICA, 1993) identifies fifty-three aspects of graphs which, if not correctly constructed, could be misleading. However, many of these factors are not precisely specified and are difficult, if not impossible to measure. Accordingly, prior academic accounting research into graph construction relies on the GDI.

TABLE 2

DESCRIPTIVE STATISTICS FOR SIXTY-THREE AUSTRALIAN FIRMS THAT CHANGED CEO IN THE PERIOD 1992–98

	Mean	Median	Min.	Max.
Year prior to change ($t-1$)				
Total revenue $m	2565.5	1324.1	30.9	18865.3
Net profit after tax $m	82.9	31.8	−1562.4	1116.0
Total assets $m	9225.8	1555.3	44.1	127604.0
Year of change (t)				
Total revenue $m	2617.3	1316.5	29.7	20412.9
Net profit after tax $m	32.4	20.4	−950.8	1024.0
Total assets $m	9811.6	1744.6	35.9	138241.0
Year after change ($t+1$)				
Total revenue $m	2548.8	1337.4	23.9	21206.0
Net profit after tax $m	105.4	32.6	−285.4	1106.0
Total assets $m	9890.4	1866.4	28.7	149720.0

While Australian firms undergoing changes in CEO do report some decrease in profit (on average) prior to the CEO change, they are generally profitable during the three years surrounding the CEO change. The underlying performance of Australian firms changing CEOs does not seem to be nearly as poor as that of U.S. firms changing CEO.

Earnings Management

Table 3 reports our analysis of profits, cash flow and accruals for the sixty-three firms. Net profit, cash flow from operations and accruals are all deflated by beginning-of-period total assets.[17] This procedure is consistent with other studies of earnings management (e.g., DeAngelo, 1988; Jones, 1991; Eddey and Taylor, 1999; Wells, 2002). It facilitates interfirm comparisons and reduces heteroskedasticity. The underlying performance of sample firms is relatively stable; however, the change in $NP/TA_{t-(t-1)}$ is significant using both parametric and non-parametric tests ($p < 0.10$). No other changes are significant.

To examine the association between CEO changes and earnings management, we measure unexpected accruals using a simple random walk model. Table 4, Panel A, reports analysis of changes in accruals for all sixty-three firms. The mean level of unexpected accruals is negative in the year of a CEO change and is significantly different from zero but only at $p < 0.10$. The median level of unexpected accruals is also negative and there are more negative unexpected accruals than positive unexpected accruals. However, a non-parametric binomial test does not

[17] Pourciau (1993) uses sales as the deflator. We repeat the analysis using current year sales as the deflator. In general, the results are similar to those presented in Tables 3 and 4.

TABLE 3

EARNINGS, OPERATING CASH FLOWS AND ACCRUALS DURING CEO CHANGES FOR SIXTY-THREE AUSTRALIAN FIRMS: 1992–98

	Mean	Median	*SD*	*t* statistic[b] (*p* value)	*z* statistic[c] (*p* value)
NP/Ta_{t-1}[a]	0.0348	0.0446	0.0687		
NP/TA_t	0.0072	0.0242	0.0987		
NP/TA_{t+1}	0.0301	0.0376	0.0771		
Change in $NP/TA_{t-(t-1)}$	–0.0276	–0.0086	0.0781	–1.821 (0.071)	–1.871 (0.061)
Change in $NP/TA_{(t+1)-t}$	0.0230	0.0150	0.0650	1.455 (0.148)	1.288 (0.198)
CFO/TA_{t-1}[a]	0.0901	0.0861	0.0581		
CFO/TA_t	0.0810	0.0646	0.0838		
CFO/TA_{t+1}	0.0724	0.0642	0.0817		
Change in $CFO/Ta_{t-(t-1)}$	–0.0090	–0.0065	0.0620	–0.703 (0.484)	–1.376 (0.169)
Change in $CFO/TA_{(t+1)-t}$	–0.0087	0.0036	0.0791	–0.590 (0.556)	–0.693 (0.488)
$Accruals_{t-1}$	–0.0553	–0.0489	0.0807		
$Accruals_t$	–0.0739	–0.0447	0.1036		
$Accruals_{t+1}$	–0.0422	–0.0387	0.0676		

[a] Profit, cash flow and accruals are deflated by beginning-of-period total assets.
[b] Test of difference in means across two periods.
[c] The *z*-statistic is calculated from the non-parametric Mann–Whitney test.

support the prediction that negative unexpected accruals are significantly more likely than positive. Accordingly, there is only limited evidence in this sample in support of H1a, which predicts that incoming CEOs in Australia take a 'big bath'.

The lack of strong evidence of negative earnings management in the period of CEO change is characteristic of some of the prior literature. Wells (2002) finds weak evidence of significant negative unexpected accruals in period *t*. Additionally, Pourciau (1993) finds evidence supporting the view that unexpected accruals in period *t* are negative.[18]

[18] Consistent with Pourciau (1993), our results are sensitive to the definition of the period of CEO change (*t*). Results reported in Panel A of Table 4 use three months after the end of the reporting period. For other cut-offs (e.g., end of reporting period, one month after the end of the reporting period) we find no significant results in period *t*. Additionally, in seven cases where the CEO's commencement date was in the second or third month after the end of the financial reporting period, we individually checked to confirm that the new CEO was in place a reasonable time before the annual report was issued. In one case the departure of the old CEO and the commencement of the new CEO were found to have occurred two weeks after the date of the auditors report in the annual report. For this case, period *t* was reclassified and the results recalculated with no substantive effect on the results shown in the article. In the other six cases, the new CEO was found to have been in place at least three weeks before the issue of the annual reports and, in most cases, signed off on the annual report.

TABLE 4

UNEXPECTED ACCRUALS DURING CEO CHANGES FOR SIXTY-THREE AUSTRALIAN FIRMS: 1992–98

	Mean	Median	*SD*	*t* statistic[a] (*p* value)	Binomial test[b] (*p* value)
Panel A					
All firms					
Unexpected accruals$_t$	–0.0187	–0.0101	0.0911	–1.630 (0.054)[c]	
Unexpected accruals$_{t+1}$	0.0317	0.0139	0.0904	2.781 (0.004)[c]	
Positive : negative$_t$		29:34			(0.307)[c]
Positive : negative$_{t+1}$		41:22			(0.012)[c]
Panel B					
Resignations					
Unexpected accruals$_t$	–0.0262	–0.0156	0.1004	–1.731 (0.046)[c]	
Unexpected accruals$_{t+1}$	0.0398	0.0139	0.0987	2.673 (0.006)[c]	
Positive : negative$_t$		18:26			(0.146)[c]
Positive : negative$_{t+1}$		28:16			(0.049)[c]
Retirements					
Unexpected accruals$_t$	–0.0013	0.0026	0.0637	–0.092 (0.464)[c]	
Unexpected accruals$_{t+1}$	0.0129	0.0139	0.0657	0.854 (0.202)[c]	
Positive : negative$_t$		11:8			(0.676)
Positive : negative$_{t+1}$		13:6			(0.084)
Panel C					
Large Firms					
Unexpected accruals$_t$	–0.0161	–0.0092	0.0756	–1.205 (0.119)[c]	
Unexpected accruals$_{t+1}$	0.0109	0.0000	0.0706	0.878 (0.194)[c]	
Positive : negative$_t$		14:18			(0.298)[c]
Positive : negative$_{t+1}$		16:16			(0.500)[c]
Smaller firms					
Unexpected accruals$_t$	–0.0211	–0.0142	0.1060	–1.109 (0.138)[c]	
Unexpected accruals$_{t+1}$	0.0530	0.0358	0.1040	2.841 (0.004)[c]	
Positive : negative$_t$		15:16			(0.500)[c]
Positive : negative$_{t+1}$		25:6			(0.000)[c]

[a] Test that mean unexpected accruals <0 (>0)
[b] Non-parametric test that number of positive(negative) unexpected accruals is greater than the number of negative (positive) unexpected accruals.
[c] One-tailed significance levels.

As H2a predicts, in the period following a CEO change the mean level of unexpected accruals is positive, and significantly different from zero ($p < 0.01$). The median level of unexpected accruals is also positive and the non-parametric binomial test indicates that positive unexpected accruals (41) are significantly more likely than negative unexpected accruals (22) ($p < 0.02$). These results are similar to those found by Pourciau (1993), but are in contrast to Wells's (2002) finding of no evidence of positive unexpected accruals in period $t + 1$.

Differences in sample selection may contribute to apparent differences between our results and those of prior research. Accordingly, we examine the circumstances surrounding the CEO change in what is exploratory *ex post* analysis. We partition our sample into cases where the CEO change is identified as retirement ($n = 19$) or resignation ($n = 44$) and conduct the above analysis for the retire/resign subsamples. Results appear in Panel B of Table 4. For the forty-four CEO resignations, the level of mean unexpected accruals in the period of CEO change is significantly negative ($p < 0.05$); however, the binomial test is not significant. In the reporting period following the CEO resignation mean unexpected accruals is significantly positive ($p < 0.01$) and positive unexpected accruals occur significantly more often than negative ($p < 0.05$). For the nineteen CEO retirements, unexpected accruals are not significantly different from zero in either period, but the binomial test is weakly significant in period $t + 1$, indicating more positive unexpected accruals than expected by chance.

The results for resignations are similar to Pourciau (1993), who eliminates all retirements from her sample. The results for retirements are similar to those of Wells (2002). Wells includes all types of CEO changes, but partitions his sample based on whether the CEO changes are routine (61.5 per cent), or non-routine (38.5 per cent). Wells also notes that 56.9 per cent of CEO changes in his sample are described as retirements. He finds some evidence of negative earnings management in the year of CEO change, mainly for non-routine changes, but no evidence of positive earnings managements in the reporting period after the CEO change.

The exploratory analysis is repeated for larger (above median total assets) and smaller (below median total assets) firms separately. The results in Panel C of Table 4 show that for larger firms undergoing CEO changes, unexpected accruals are not significantly different from zero in either period t or $t + 1$. The analysis of larger companies produces results similar to Wells (2002), whose sample is the top hundred ASX listed companies. For smaller firms, unexpected accruals are negative in period t but are not significantly different from zero. In period $t + 1$, however, smaller firms show significantly positive unexpected accruals ($p < 0.01$). This is supported by the binomial test that is significant at $p < 0.01$ in $t + 1$.

Selectivity

The impression created by graphical representation of the underlying performance in the annual report may be subject to 'impression management' as either a complement to, or a substitute for, earnings management. Selectivity in

presenting information in graphs is one way that management can engage in impression management.

Most sample companies (81 per cent) include at least one graph in their annual report in period $t-1$. This proportion falls to 79 per cent in the year of change of CEO and rises to 83 per cent in the year after the change. These percentages are similar to those found by Mather *et al.* (1996), who find that 83 per cent of the top 150 Australian listed companies use graphs in their 1992 annual reports and Beattie and Jones (1999) who find that 89 per cent of the top hundred Australian listed companies use graphs in their 1991 annual reports. In the present sample, the mean number of graphs used falls from 9.7 in $t-1$ to 8.5 in t and then rises to 9.0 in $t+1$.

Selectivity is concerned with whether the inclusion of graphs and the choice of variables graphed relate to financial performance. The method we adopt in the study allows a direct test of this issue. We compare annual reports in period $t-1$ to those in period t to identify any changes in the choice of KFVs graphed. We then repeat this process, comparing period t to period $t+1$. Changes could fall into one of two categories: that is, a key financial variable graphed in period $t-1$ but not in period t, or vice versa. As outlined earlier, changes in graphs are classified as either favourable (addition of graphs where the performance trend on the variable is positive, deletion of graphs where the performance trend on the variable is negative), or unfavourable (addition of graphs where the performance trend on the variable is negative, deletion of graphs where the performance trend on the variable is positive). Table 5 reports the results of this analysis.

There are ninety-two changes in key financial variables graphed between $t-1$ and t, averaging 1.46 per firm in the sample. This falls to seventy-seven changes from t to $t+1$, averaging 1.22 per company. In comparison, Mather *et al.* (1996) find seventy changes in their 1992 sample of 143 listed firms (0.49 per firm). As such, firms changing CEOs seem to make more changes in graphs than 'normal'.

For companies experiencing CEO changes, the incoming CEO has incentives to blame poor performance on outgoing management by graphing variables that show poor performance and dropping variables that show good performance. The relationship hypothesized in H1b is opposite to the relationship found in prior non-context-specific research into selectivity (e.g., Beattie and Jones, 1992, 1999; Mather *et al.*, 1996) and is, therefore, a strong test. Table 5 Panel A does not support this hypothesis as only forty of the ninety-two graph changes in the period of CEO change are unfavourable.

Among the individual KFV graphs, only profit graphs are sufficiently numerous to warrant separate statistical analysis. Panel A of Table 5 shows that in the period of CEO change twenty-four of fifty profit graph changes are unfavourable to the firm, again not supporting H1b.

Hypothesis H2b predicts favourable selectivity in the period following the CEO change. Panel A of Table 5 shows very strong support for this hypothesis. Fifty-seven of the seventy-seven KFV graph changes in the period after the CEO

TABLE 5

SELECTIVITY: BINOMIAL TESTS OF THE RELATIONSHIP BETWEEN CHANGES IN GRAPHS OF KEY FINANCIAL VARIABLES AND PERFORMANCE MEASURED AS THE TREND ON THE VARIABLE BEING GRAPHED

	Graphs of all key financial variables	Graphs of profit
Panel A		
All firms		
Year *t*	$n = 92$	$n = 50$
	$fav = 52$	$fav = 26$
	$p =$ [a]	$p =$ [a]
Year $t + 1$	$n = 77$	$n = 44$
	$fav = 57$	$fav = 33$
	$p = 0.000$[b]	$p = 0.001$[b]
Panel B		
Resignations		
Year *t*	$n = 68$	$n = 32$
	$fav = 38$	$fav = 14$
	$p =$ [a]	$p = 298$[b]
Year $t + 1$	$n = 49$	$n = 28$
	$fav = 39$	$fav = 22$
	$p = 0.000$[b]	$p = 0.003$[b]
Retirements		
Year *t*	$n = 24$	$n = 18$
	$fav = 14$	$fav = 12$
	$p =$ [a]	$p =$ [a]
Year $t + 1$	$n = 28$	$n = 16$
	$fav = 18$	$fav = 11$
	$p = 0.093$[b]	$p = 0.105$[b]
Panel C		
Larger firms		
Year *t*	$n = 61$	$n = 33$
	$fav = 30$	$fav = 13$
	$p = .500$[b]	$p = 148$[b]
Year $t + 1$	$n = 39$	$n = 23$
	$fav = 24$	$fav = 16$
	$p = 0.100$[b]	$p = 0.047$[b]
Smaller firms		
Year *t*	$n = 31$	$n = 17$
	$fav = 22$	$fav = 13$
	$p =$ [a]	$p =$ [a]
Year $t + 1$	$n = 38$	$n = 21$
	$fav = 33$	$fav = 17$
	$p = 0.000$[b]	$p = 0.004$[b]

[a] H1b is a unidirectional hypothesis. As the number of favourable changes exceeds the number of unfavourable changes (contrary to the hypothesis), no *p*-value can be specified for a one-tailed test.
[b] *p*-values are one-tailed probabilities of unfavourable selectivity in period *t* (H1b) and favourable selectivity in period $t + 1$ (H2b).

change are favourable (binomial test $p < 0.001$), with thirty-three of forty-four profit graph changes also being favourable ($p < 0.001$).[19]

Panel B of Table 5 shows the results of analysing selectivity on the basis of identifying the CEO changes as resignations or retirements. For resignations, profit graphs show more unfavourable changes (18) than favourable (14) in period t. However, the difference is not significant. For period $t + 1$, results are strongly significant both for overall KFV graph changes and for changes-in-profit graphs. This is the case when the binomial test is based on an equal proportion of favourable/unfavourable graph changes and when using the observed proportion of favourable graph changes in period t (see note 19). For CEO changes classed as retirements, favourable graph changes occur more frequently than unfavourable changes in both the year of CEO change and the year after. This favourable selectivity is only significant at the 10 per cent level for overall KFV graph changes in $t + 1$, and is insignificant if the proportion of favourable changes in t is used as a basis for testing. As for earnings management, there are few significant results for CEO changes identified as retirements.

Since prior research finds stronger selectivity in graphs prepared by smaller Australian firms (Mather *et al.*, 1996), we perform further exploratory analysis of selectivity by dividing the sample at the median total assets into 'larger' and 'smaller' firms. The results are shown in Panel C of Table 5. In the period of CEO change, unfavourable graph changes overall and for profit occur more frequently than favourable for larger firms. However, this is not significant. In the period following the CEO change, larger firms exhibit some favourable selectivity for overall KFV graph changes ($p = 0.1$ where the expected proportion is 0.50) and significant favourable selectivity for profit graphs ($p < 0.05$ where the expected proportion is 0.50). Basing the test on the observed proportion of favourable selectivity in t, the significance increased ($p < 0.003$).

In the period of CEO change, smaller firms do not exhibit unfavourable selectivity. Indeed, the extent of *favourable* selectivity exhibited by small firms in period t is likely to occur by chance less than five times in a hundred. In the period following the CEO change, small firms continue to exhibit significant favourable selectivity both overall and for profit graphs. Using the observed proportion of favourable selectivity in t as the base, the increase in selectivity for smaller firms for overall KFV graph changes is significant ($p < .025$ one-tailed), but is insignificant for profit graph changes. This provides some support for the view that small firms increase their already high degree of favourable selectivity in reporting periods after CEO changes.

[19] Binomial tests of H1b and H2b use a favourable/unfavourable proportion of 0.5, that is, a random allocation. For $t + 1$, additional binomial tests were also conducted using the actual proportion of favourable selectivity observed in t. Thus, in $t + 1$ the proportion of favourable KFV changes ($57/77 = 0.74$) is tested against the proportion observed in t ($52/92 = 0.57$). The binomial test is again significant for overall (profit) changes at $p < 0.002$ (0.002). Thus the extent of favourable selectivity observed in $t + 1$ is significantly different from a random allocation (H2b) and significantly different from the extent of selectivity observed in t.

Distortion

Distortion is concerned with the extent to which graphs of key financial variables accurately reflect the underlying data. Using the 5 per cent cut-off of the graph discrepancy index (GDI) to classify distortion as an exaggeration or understatement, 52.8 per cent of graphs of key financial variables presented in the annual reports of Australian firms in the year that they change CEO are distorted. In the year prior to the change, 58.5 per cent are distorted and in the year after the change, 48.7 per cent are distorted. In contrast, Mather *et al.* (1996) and Beattie and Jones (1999), using the same method of analysis, find that only 29.7 per cent and 34.2 per cent of KFV graphs in annual reports of Australian listed firms are distorted. Firms changing CEO appear to prepare graphs that are more distorted than average.

H1c and H2c predict whether distortion of graphs gives an unfavourable/favourable portrayal of the firm's performance in t and $t + 1$, respectively. As previously indicated, the effect of graphical distortion is described as favourable if an improving performance is exaggerated *or* if a declining performance is understated. The effect is classed as unfavourable in opposite circumstances. Consistent with prior studies, the results are obtained using the binomial test.

Results of this analysis appear in Table 6. Panel A of Table 6 indicates that KFV graphs are neither unfavourably distorted in t nor favourably distorted in $t + 1$. Hence, there is no overall support for either H1c or H2c. For individual KFV graphs, numbers are not sufficient to allow meaningful statistical analysis. In Panel B the CEO changes are divided into resignations and retirements. For both categories there is no significant evidence of unfavourable or favourable distortion in the manner posited. In panel C the analysis is repeated, on an exploratory basis, for smaller/larger firms. In the period of CEO change, large firms do not exhibit unfavourable distortion. Indeed, the extent of favourable distortion in period t is likely to occur by chance fewer than five times in a hundred. No other significant relationships are reported in Table 6. In contrast to most of the non-context specific prior research, we find little evidence of a significant relationship between distortion in graphs of KFVs and firm performance.[20]

[20] The use of 5 per cent as the cut-off for measuring distortion is well established in the prior literature (e.g., Beattie and Jones, 1992, 1999; Mather *et al.*, 1996) and is based on the assertion by Tufte (1983, p. 57) that +/–5 per cent 'indicates substantial distortion, far beyond minor inaccuracies of plotting'. At the suggestion of a referee, we also conducted the distortion tests using 10 per cent and 20 per cent GDI cut-offs. The effect of using the higher cut-offs is to reduce the size of the sample of graphs deemed distorted.

Using the 10 per cent and 20 per cent cut-offs did produce some significant results, but the results varied depending on the cut-off used and were not consistent. For example, in period t unfavourable graph distortion was hypothesized and found ($p < 0.05$) for smaller firms using a 20 per cent cut-off—but not at the 10 per cent cut-off. In the same period, significant favourable distortion (contrary to our hypotheses) was found for large firms, CEO resignations and the overall sample for some cut-offs, but not others. In period $t + 1$, favourable distortion was hypothesized and found ($p < 0.01$) for the overall sample at the 20 per cent cut-off (but not 10 per cent), for resignations ($p < 0.01$ at the 20 per cent cut-off, but only at $p < 0.1$ at the 10 per cent cut-off), for smaller firms ($p < 0.05$ at the 20 per cent cut-off, but not at all at the 10 per cent cut-off). It is difficult to interpret these results.

TABLE 6

PANEL A: ALL FIRMS DISTORTION: BINOMIAL TESTS OF DISTORTION IN GRAPHS OF KEY FINANCIAL VARIABLES AND FIRM PERFORMANCE

	Graphs of all key financial variables
Panel A	
All firms	
Year *t*	$n = 74$
	$fav = 43$
	$p =$ [a]
Year $t + 1$	$n = 77$
	$fav = 42$
	$p = 0.247$[b]
Panel B	
Resignations	
Year *t*	$n = 46$
	$fav = 27$
	$p =$ [a]
Year $t + 1$	$n = 52$
	$fav = 30$
	$p = 0.166$[b]
Retirements	
Year *t*	$n = 29$
	$fav = 16$
	$p =$ [a]
Year $t + 1$	$n = 25$
	$fav = 12$
	$p =$ [a]
Panel C	
Larger firms	
Year *t*	$n = 48$
	$fav = 32$
	$p =$ [a]
Year $t + 1$	$n = 49$
	$fav = 27$
	$p = 0.284$[b]
Smaller firms	
Year *t*	$n = 26$
	$fav = 11$
	$p = .444$[b]
Year $t + 1$	$n = 28$
	$fav = 15$
	$p = 0.425$[b]

[a] The result is in the opposition direction to that hypothesized. No p value can be specified.
[b] p values are one-tailed probabilities of unfavourable distortion in year t (H1c) and favourable distortion in year $t + 1$ (H2c).

Joint Tests

As an additional exploratory part of our analysis, we develop tests that simultaneously consider aspects of both earnings management and impression management. To do so, we rank all sample firms by unexpected accruals in each of period t and period $t + 1$. We next split the ranking at zero in each period, forming a positive unexpected accruals portfolio and a negative unexpected accruals portfolio.[21] Impression management (selectivity and distortion) is then investigated for each portfolio.

The joint tests indicate that earnings management and selectivity are directly associated. The results of these tests are shown in Table 7. However, none of the joint tests involving distortion are significant and these are not discussed further.

TABLE 7

JOINT TESTS UNEXPECTED ACCRUALS AND SELECTIVITY

	Graphs of all key financial variables	
	Year t	Year $t+1$
Panel A		
All Firms		
+ve unexpected accruals	$n = 43$	$n = 40$
	$fav = 27$	$fav = 32$
–ve unexpected accruals	$n = 49$	$n = 37$
	$fav = 25$	$fav = 25$
	$p = .041^a$	$p = 0.047^b$
		$p = 0.001^c$
Panel B		
Resignations		
+ve unexpected accruals	$n = 31$	$n = 26$
	$fav = 20$	$fav = 24$
–ve unexpected accruals	$n = 37$	$n = 23$
	$fav = 18$	$fav = 16$
	$p = .022^a$	$p = 0.006^b$
		$p = 0.000^c$
Retirements		
+ve unexpected accruals	$n = 12$	$n = 14$
	$fav = 7$	$fav = 8$
–ve unexpected accruals	$n = 12$	$n = 14$
	$fav = 7$	$fav = 9$
	$p = 1.00^a$	$p =$ [b]
		$p = 0.930^c$

[21] We acknowledge that using the sign of unexpected accruals to partition firms in this manner is subject to potential measurement error.

TABLE 7

(CONTINUED)

Panel C		
Larger firms		
+ve unexpected accruals	$n = 30$	$n = 10$
	$fav = 17$	$fav = 6$
–ve unexpected accruals	$n = 31$	$n = 29$
	$fav = 13$	$fav = 18$
	$p = .049$[a]	$p =$ [b]
		$p = 0.123$[c]
Smaller firms		
+ve unexpected accruals	$n = 14$	$n = 30$
	$fav = 10$	$fav = 26$
–ve unexpected accruals	$n = 17$	$n = 8$
	$fav = 12$	$fav = 7$
	$p =$ [a]	$p =$ [b]
		$p = 0.032$[c]

[a] For period t, p measures the one-tailed probability of observing, for the group of firms with the hypothesized negative unexpected accruals, the observed proportion of unfavourable graph changes. In assessing these probabilities, the proportion of unfavourable graph changes observed in period t for firms with positive unexpected accruals is used as the 'default' population proportion. Where the value for p is blank, this indicates that the difference is not in the direction expected.

[b] For period $t + 1$, p measures the one-tailed probability of observing for the group with the hypothesized positive unexpected accruals, the observed proportion of favourable graph changes. The observed proportion of favourable graph changes in period $t + 1$ for firms with negative unexpected accruals is used as the 'default' population proportion. Where the value for p is blank, this indicates that the difference is not in the expected direction.

[c] p measures, for the group of firms with the hypothesized positive unexpected accruals in $t + 1$, the one-tailed probability of observing the $t + 1$ proportion of favourable graph changes, assuming the 'true' proportion of favourable graph changes is that observed for the group with the expected, negative unexpected accruals in period t.

The information in Table 7 can be interpreted as follows. Panel A, column 1, shows that in period t, 24 of 49 graph changes made by firms with the hypothesized negative unexpected accruals were unfavourable, whereas only 16 of 43 graph changes made by firms with positive unexpected accruals were unfavourable. The probability of this difference is marked [a] in Table 7. Panel A shows that this difference is significant for the overall sample. Panel B reports significant results for the resign subsample and Panel C again reports significant results for the larger firm subsample.

Column 2 of Panel A of Table 7 shows that in period $t + 1$, 32 of 40 graph changes made by firms with the hypothesized positive unexpected accruals were favourable, as opposed to only 25 of 37 graph changes made by firms with negative unexpected accruals. The probability of this difference is marked [b] in Table 7.

Panel A, column 2, reports that this difference is significant for the overall sample and Panel B reports significant results for the resign subsample.

Having compared these groups cross-sectionally, we also analyse the time series of graph changes over these periods for the two groups of firms. Probabilities marked [c] in Table 7 indicate whether firms with unexpected accruals in the direction hypothesized (negative in t, positive in $t + 1$), show a significant increase in the proportion of favourable graph changes. Panel A of Table 7 shows that for the sample overall the increase in favourable graph changes from period t to $t + 1$ is strongly significant. Panel B shows a similar result for the resign subsample, while Panel C shows a weaker, but still significant, difference for the small firm subsample. For firms where the unexpected accruals were in the opposite direction to that hypothesized, none of the tests showed any significant increase in favourable graph changes between period t and $t + 1$.

Accordingly, the joint tests reported in Table 7 produce evidence that earnings management and selectivity are directly associated.

CONCLUSION

This study is the first to examine impression management in the context of CEO change. It is also the first to link the earnings management and impression management literature. The prior context-specific earnings management research has been unable to distinguish between management opportunism and accurate reporting of underlying economic performance as explanations for results obtained. Any manipulation of graphs, however, suggests opportunism rather than accurate reporting. We therefore argue that if there is evidence consistent with both the hypothesized earnings and impression management behaviour in the periods of and/or after CEO change, then the additive nature of this evidence supports opportunism as an explanation.

The results only partially support these arguments. There is some evidence of income reducing earnings management in period t (negative unexpected accruals overall and, more strongly, for CEO resignations). There is no prima facie evidence of unfavourable impression management in t that would support management opportunism as the explanation. However, this result should be viewed in the light of the generally strong non-context-specific prior evidence of favourable impression management.

As predicted, we find strong evidence of income increasing earnings management in period $t + 1$. This is accompanied by evidence of significant favourable selectivity for all KFV graphs and for profit graphs for all firms. There is, however, no evidence of favourable graph distortion in period $t + 1$. Overall, the evidence provides some support for the management opportunism explanation.

Within the exploratory subsamples, CEO changes identified as resignations provide the strongest support for our hypotheses. Although they show no significant unfavourable graph selectivity in the period of CEO change, the other results support a management opportunism explanation. Conversely, for CEO changes identified as retirements, there is little or no support for any of the

hypotheses. The subsample of larger firms shows no evidence of earnings management in t and $t + 1$, and limited evidence of favourable selectivity in selection of profit graphs in $t + 1$. This suggests either that management of larger companies is less self-interested and opportunistic or that these tendencies are more effectively constrained in larger firms. For smaller firms there is strong support for favourable earnings and impression management in period $t + 1$, but no support for any unfavourable earnings or impression management in period t. While the 'small firm' effect would be interesting to pursue, it is an extensive research area that is beyond the scope of this article since firm size can proxy for many different attributes.[22]

Finally, some joint tests of earnings and impression management provide a more direct link between these areas. None of the joint tests involving distortion produced significant results; however, the joint tests investigating earnings management and selectivity produced evidence that these are directly associated. For example, firms with the hypothesized negative (positive) unexpected accruals in period $t(t + 1)$, exhibit significantly more unfavourable (favourable) graph changes in period $t(t + 1)$ than do firms whose unexpected accruals are not as hypothesized. This result is also found for the subsample of CEO resignations.

This research incorporates two methodological refinements. First, for the purposes of identifying earnings management, CFO was extracted from cash flow statements prepared in accordance with AASB1026, *Statement of Cash Flows*. This helps avoid measurement error arising from the reconstruction process (Collins and Hribar, 1999) and contrasts with much of the prior earnings management literature that estimates CFO using the indirect method. Second, the test of selectivity identifies and uses actual changes to KFV graphs between $t - 1$, t and $t + 1$ that are then linked to the specific firm's performance. This represents a stronger test of management's intent regarding selectivity than most prior studies that base their tests on contemporaneous association.

However, there are also several limitations inherent in the study. The first is the method used to measure unexpected accruals. Measurement error is possible as the model used may lack sufficient power to detect earnings management. Similarly, if unexpected accruals vary with firm performance, and firm performance varies with the probability of CEO change, then the ensuing tests will be biased. The second limitation is that, similar to Pourciau (1993), the earnings management results are sensitive to alternative definitions of the year of change. The third limitation is that, as with the prior research in this area, capital market activity such as share issues and merger and acquisition activity may also motivate earnings management and create a potential omitted variables problem. Similarly, while we have extended the literature incrementally by the choice of a specific context where the incentives to manage impressions are likely to be strong, we

[22] For example, the results may indicate that at least some of the small firms are young growth firms, where firm survival, growth and access to capital may be more important to the incoming CEO than 'point-scoring' off the outgoing CEO. Alternatively, the results may reflect political cost issues, the quality of management advice, auditor quality or some other attribute (Ball and Foster, 1982).

nevertheless also acknowledge that other factors may influence the nature and strength of impression management and such omitted variables may moderate or add to the incentives associated with CEO change. In mitigation, it should be noted that most plausible motivations would normally suggest positive earnings management and impression management that would work against our hypotheses for period *t*. The fourth limitation is that we have not explicitly considered the abnormal/extraordinary classification as a vehicle for earnings management. Finally, as is in the prior literature, the unit of analysis in respect of selectivity is the graph rather than the firm. While there are arguments to support both the graph and the firm being used as the unit of analysis, as it is possible for the same firm to make favourable and unfavourable graph changes, it is unclear how a firm level analysis may be objectively operationalized. All of these limitations provide avenues for future research.

This study contributes to the literature exploring context-specific incentives for earnings and impression management, the role of accounting in corporate contracting, and managerial behaviour. Moreover, it raises additional research questions. For example, a review of the findings suggests opportunistic behaviour to manage earnings and to manage related impressions is more likely among firms with CEO resignations rather than retirements, and among smaller firms rather than larger firms. This indicates the need for further research into the process of CEO change and its relationship to other firm characteristics such as corporate governance structures and/or to different levels of analyst scrutiny.

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APPENDIX

GROUP OF MANAGERS INTERVIEWED

Date	Interviewee	Location
22 January 1999	Partner, Big Five accounting firm	Interviewee's office, Melbourne
4 February 1999	Adviser, who has also chaired the boards of several listed companies	Interviewee's office, Melbourne
8 February 1999	Finance director, listed company	Interviewee's office, Sydney
8 February 1999	Chief financial officer, major division of a large multinational	Interviewee's office, Sydney
18 February 1999	Partner, Big Five accounting firm	Interviewee's office, Melbourne
26 February 1999	CEO of the Australian operations of a large multinational	Restaurant, Melbourne

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Notes of the University of Sydney Pacioli Society

THE UNIVERSITY OF SYDNEY PACIOLI SOCIETY MEETING ON SUPERANNUATION, 6 AUGUST 2002

ACCOUNTING FOR SUPERANNUATION

If ever there was an area of our accounting standards that could be accused (and duly convicted!) of condoning outdated, irrelevant reporting, we need look no further than AAS 25, *Financial Reporting by Superannuation Plans.*

In the amount of time available to me this evening, I am going to seek to cover three areas:

1. the background to reporting by superannuation entities;
2. an illustration of the disparity between a layman's understanding of superannuation and what our standard currently requires in reporting; and
3. some proposals for reform.

You may know that a proposal for revising the standard has already gone to the Australian Accounting Standards Board. I have provided some input into that process including authoring a paper from KPMG on the proposed revision. But in reflecting on the process so far, I still have some reservations as to whether the proposals will ultimately provide a reporting framework which is, first, user friendly, secondly, facilitates comparability with other savings vehicles; and lastly, recognizes the fact that superannuation entities have unique characteristics that compel us, as reporters of financial information, to be adaptable in the application of other accounting standards. We must ensure the application of relevant standards contributes to, rather than detracts from, the provision of valuable, meaningful information, thus enlightening the reader instead of confusing them.

Background

When AAS 25 was released for comment in the late 1980s its authors knew that we needed a reporting standard for those vehicles that would report on the conditions of the nation's retirement savings in the twenty-first century. Appropriate and timely sentiments indeed!

However, 20/20 hindsight leads me to conclude that the big picture objectives became obscured by the petty squabbles of academic argument over the different perspectives held by lawyers, actuaries and accountants. This was driven by debate on whether tax law, trust law, accounting concepts or actuarial methodologies should be given the greater weight. And where was the end user voice in

this? Well unless that user was an accountant, actuary, lawyer or revenue collector —there probably was none.

And why was this? Simply put, there was no more confusing and confounding area of government policy and regulation for the layman and many professionals alike. The stories of thousands of changes during the gestation and eventual birthing of our current system are now the stuff of legend. Most of us had no clear idea of what it all meant past the fact that government said we cannot support you in retirement—you are going to have to save to support yourself.

And in the early 1990s, despite the prevalence of tax incentives available, the government of the day found that Australians of the '80s consistently demonstrated that they had absolutely no interest in saving for their retirement, so a national, compulsory, fully vested system of retirement savings for employees was introduced. Nearly five years later AAS 25 was introduced.

Did the profession have another look to see if our standard was still relevant in this new, compulsory, fully vested savings environment? Hell no. Notwithstanding that there had been another couple of hundred changes to policy and a totally new piece of legislation introduced—the Superannuation Industry (Supervision) Act—our profession used what was at hand to deal with the reporting needs of the new era.

My opinion is that this was like the Polish using their cavalry to deal with the German tank battalions in 1939. Yet it seemed to go largely unnoticed. This was probably due to one indisputable fact: that by virtue of compulsion, now the entire country, employers and employees alike, was as confused by superannuation as those who had been trying to understand it since award-based super was introduced in the mid-1980s. We, as a profession, instead of shedding light on the subject were pitied by others rather than looked to for guidance and thoughtful leadership.

Well, it's the tenth anniversary of the introduction of our compulsory system. Importantly, a significant number of people have tens of thousands of dollars in their superannuation accounts and our profession will be looked to for guidance. So let me move to the next two areas of my presentation—an illustration of what I believe is the disparity between a layman's understanding of superannuation and what our current reporting standard portrays, and finally to a few proposals as to what I think should change in AAS 25 and why.

Disparities

Let's start with how the layman views superannuation. They regard their superannuation as their own, fully vested, compulsory savings. They also understand that, for reasons best known to the government, some or all of those savings are subject to a tax when they are paid into a fund by their employer, the earnings on those savings is taxed while they are in a fund and, depending on a multitude of options available to a member, they may be taxed when they're paid to the member from a fund.

They also understand that the amount of government tax on their savings going into a fund is dependent on whether someone somewhere has got a tax deduction

for making that payment into the fund, *plus* if their calculated income (including those deductible contributions) exceeds a certain amount then the savings contributed will be subject to an additional amount of tax.

We in the profession determined that these savings should be classified as revenue to the fund. Further, and depending on the interpretation of the various legislation allowing the government to collect certain taxes from those savings, those taxes should be treated as expenses—some an expense before tax, others as separate income tax. And of course this all needs to be reconciled to show how the reported profit of the fund relates to the total amounts payable by the fund to the government.

I cannot believe that this treatment accords with a layman's understanding of the differences between capital contributed, income earned on that capital and expenses incurred in earning that income.

I've stood before the Urgent Issues Group to raise these issues before some of our learned colleagues—one of them accused me of being an actuary—and begged for a common sense approach to this issue . . . specifically the treatment of the surcharge tax. My aim was to ensure that if any member ever asked to see the set of audited accounts of a superannuation fund they could distinguish between what the member or their employer had contributed, what the government had taken from that, and what it was that the fund had actually earned or expended on their behalf during the year. Obviously I was not convincing as we had UIG Abstract 19 issued in its current form.

I view AAS 25 and UIG 19 as comprising 'bolt-on' answers to try to create a standardized report for an inherently complex entity—not all entities, mind you—as AAS 25 has never applied to pooled superannuation trusts and approved deposit funds. I know that our task has not been made easy by the previous and current governments' partisan, persistent and short-term tinkering with the retirement incomes system and its tax treatment. But what I think is unforgivable is that our profession has neglected to revise AAS 25 in light of the huge changes in the features of the superannuation environment over the last fifteen years.

Let me now move to the final part of my presentation—some proposals for reforming AAS 25.

Reform

Let me look at two of the three attributes that I mentioned as essential in reporting on superannuation—that is, being user friendly and facilitating comparability with other savings vehicles. I'll do this within the context of the nature of the relationship between the superannuation fund and its members.

The essence of this relationship is trust. The fund member trusts the governing body of the fund to receive money on his or her behalf and invest that money in the manner described in the information provided to that member on joining the fund. This is a distinct and significant difference from placing money on deposit with a bank or paying premiums on a life insurance policy.

In saying this, I am not forgetting those funds that are defined benefit funds. In those funds, it is both the employer and the employee who trust that the money received will be invested in a manner that will generate sufficient funds to meet

the employer's promised benefits to fund members. While defined benefit funds may be diminishing in number, as employers seek to segregate their business from the investment risk of employees' superannuation entitlements, those funds still have a significant membership base in Australia.

Even if the rules requiring preservation of monies received by funds within the superannuation system did not exist, I believe that the essential characteristic of the monies received by the trustee to invest on behalf of the fund members (and possibly employers) is in the nature of risk capital and should be disclosed as such. We should not allow a common sense approach to be derailed because there is a tax on saving for the future to mitigate the loss of government revenue by allowing tax deductions to certain contributors.

I also believe that we should not try to fabricate some economic equation of value by stating, 'because superannuation is an employer expense, therefore it must be income to the entity that receives it'.

In substance (and I know you all agree on the importance of substance over form) I believe superannuation is properly characterized as part of the total remuneration of the employee who will ultimately receive the after-tax benefit of this compulsory saving in retirement. It is by government compulsion that those savings are placed into in a 'trust' system until they can be redeemed on retirement, death or disability.

So, in light of that, I have here a handout which sets out (in basic format) what I believe should be the statement of financial performance, statement of financial position, statement of cash flows and principle accompanying notes for *any* superannuation entity, including defined benefit funds.

Will the handout accord neatly with our current standards? Not in all aspects, no. Will it be understandable by the persons who have a vested interest in the underlying transactions giving rise to these statements? I like to think it would.

I realize that we could sit and debate this in some detail. I would be quite happy to have a separate workshop on this issue at some future time to that effect.

I shall just summarize the main components of the handout.

The statement of financial performance focuses on investment revenue and expense and administrative revenue and expense and shows the income tax effect on each of those components quite separately.

The result of the operations is allocated (distributed) to members' accounts or carried to reserves in the fund, not unlike disclosures seen in the accounts of non-superannuation products such as registered managed investment schemes.

The statement of financial position shows the assets of the fund, principally its investments, its liabilities including current and deferred income tax, benefits due and payable to exiting members, and shows a 'members' funds' section. You'll note that I have not labelled these as liabilities, consistent with my contention that members' funds held in trust are essentially risk capital.

The movement in members' funds is shown as a note to the accounts, similar to the movement in contributed equity as per AASB 1040. However, it does show the government appropriations on account of taxable/surchargeable contributions received into the fund.

I know that some might say that this will cause difficulties in identifying the total tax liability of the fund. I think that the note that discloses a reconciliation of the various tax imposts quantified within the accounts will deal with that. Benefit payments and insurance proceeds received to make benefit payments are also contained in these disclosures.

The statement of cash flows details flows from operations (being investment and administration income, expenses and all taxes), from investing activities and from financing activities (being the receipt of contributions and benefit payments).

You will see I have given some additional emphasis to the segment reporting note which requires reporting on:

- performance by investment options, including asset allocation details,
- investment in geographic regions (if material), and
- the separation of defined benefit, accumulation and/or pension sections in hybrid funds.

There are also notes which deal with management expense ratios and reported investment performance, together with notes on movements in any reserves held but not credited to members on account of administration expense or to 'smooth' fund crediting rates.

So let me conclude by summarizing my main contentions in this presentation:

- Reform in the reporting by superannuation entities is long overdue;
- The essential characteristic of superannuation funds is that they are pooled savings vehicles receiving risk capital on trust for investment, and generating income and incurring expenses on behalf of their members in accordance with stated investment strategies; and
- User friendliness and comparability need to be the drivers in the adoption of a reporting format for these entities so that members can be provided with management's and an independent auditor's assurance that their savings for the future are being truly and fairly reported on each period.

Thank you.

Paul Reid, KPMG Partner

DISCLOSURE BY SUPERANNUATION FUNDS: EFFECTIVE IN PROTECTING RETIREMENT BILLIONS?

With the recent spectacular corporate collapses and accounting scandals, much has been said about the need for greater 'transparency' of disclosure by corporate entities. But another large and less visible threat which has the potential to have equally disastrous consequences as the HIH collapse is lurking in the $500 billion superannuation industry.

In early 2002 the Federal government resurrected its choice of superannuation fund bill; the bill previously failed in the Senate in 2001 following six years of

debate and amendments. If the government's proposed bill is now passed then a substantial proportion of Australian workers will be able to choose which superannuation fund they join and have the freedom to switch to another fund later if they choose. Presently most employees have to join the superannuation fund specified by their employer or workplace agreement. The government expects that greater freedom of choice will increase competition between funds, which in turn will reduce fund costs, increase returns, and so maximize members' benefits. However, introducing choice without significantly improving present disclosures by superannuation funds is tempting fate.

Throughout the six-year choice of fund (COF) debate it was universally agreed that informed choice is an essential prerequisite for the choice of fund objectives to be met. Major barriers to informed choice include inadequacy of disclosures by superannuation funds and the problem of members' inability and/or unwillingness to exercise choice. With regard to the barrier of inadequate disclosure, the accounting profession can play an important role in contributing towards the development and establishment of appropriate standards which deliver relevant and reliable information to aid superannuation fund members in their choice decisions. The two aspects of fund disclosure that need to be addressed are the content of fund financial reports and access to those reports.

Financial Information Disclosure

Superannuation funds disclose financial information at two levels—the fund level and individual member level. For members in accumulation-type funds, the individual member statements provide four key pieces of financial information:

1. an opening account balance (which hopefully corresponds with the closing balance for the previous reporting period);
2. the amounts by which the account has increased with the contributions by the member and/or the employer;
3. the amounts that have been deducted in terms of fees, insurance and taxes; and
4. the net amount of investment earnings that have been credited to the account.

The two items that affect the evaluation of the fund's performance are fees and charges, and investment returns. To evaluate the fund's performance in relation to these two items, a fund member needs to be able to link the information on their benefit statement to information at the fund level.

Let's first consider the issue of fees disclosure. To evaluate whether the fund's fees are reasonable and competitive a member needs information about the types of costs included in the fees and the basis on which the costs have been allocated to members' accounts. The types of costs include trustee fees (if any), fund management fees, administrative staff costs, audit fees, actuarial fees and other costs associated with administration of the fund.

Is such information normally disclosed to members? Funds are required to provide members with certain fund information and abridged financial information in an annual report. This report is analogous to a company concise report. The full

financial report is available on request by members. Information disclosed about administration costs in the superannuation fund annual report is limited. For example, in the case of my fund the annual report provides information about the administration fees applied to my benefit (i.e., 4 per cent of contributions). In relation to the type of costs, there is only one line shown for administration costs with a total of $7 million for the six months to June 2001. (The fund changed its financial year end from December to June in 2001.) Thus there is insufficient detail about the amounts that have been incurred for the various types of costs which would enable evaluation of the effectiveness of the fund in minimizing costs. Similarly, attempting to relate the investment return on my benefit statement to the fund-wide investment performance is problematic given that the assets of the fund are in different pools with different investment mixes. There is insufficient information about the dollar amounts for the income and investment expenses on each of these pools to evaluate my rate of return.

So if the annual report does not provide sufficient information, can the essential information be found in the audited financial report? The financial report provides more detail about the administration costs such as directors' fees and office running costs. However, the single largest cost is the fee paid to the administration company, which is a separate entity. Again, the administration fee is a one-line item with no details provided such as how much is paid to the CEO. The absence of such disclosure is common where an 'external' administration company is used. The amount of salaries paid to these agents is a key piece of information in which members are interested, but to which they do not have access. In relation to the investment performance, the situation is worse. All investment assets and income on those assets are aggregated in the fund financial report, so there is no way of identifying how the information relates to each of the investment pools.

Given these apparent inadequacies in fund financial reports, the question is whether something is being done to remedy the situation.

AAS 25 and Future Directions?

The content of periodic member statements is governed by the Corporations Regulations, pursuant to the Financial Services Reform Act. Legislation also requires the preparation of fund level audited financial reports, but the content of such reports is governed by accounting standards, principally AAS 25. As Paul Reid has already mentioned, AAS 25 has now been in operation for over ten years with virtually no changes. Although there have been significant structural changes in the industry with the proliferation of hybrid funds, master trusts and member investment choice, the standard remains the same as it was when drafted in the late 1980s.

In 2001 the (then) Senate Select Committee on Superannuation and Financial Services addressed disclosure as a key issue in their review of the superannuation system. In giving evidence to the committee, the chairman of the Australian Accounting Standards Board, Mr Keith Alfredson, stated that AAS 25 is out of date and should be updated. He indicated that the superannuation accounts prepared in accordance with the requirements of the standard may not give information to fund members that is relevant to member choice of investment. For example,

the accounts might show the total investment performance results of an entire superannuation fund, but might not give the investment performance results of the various investment pools in which members may have chosen to invest (such as the balanced pool, the growth pool, the cash pool and the capital stable pool). The Senate Committee was also told that the Institute of Chartered Accountants in Australia (ICAA) was in the process of reviewing AAS 25 and the committee expressed support for their 'ongoing efforts to ensure that accounting standards for superannuation funds are up to date and appropriate'.

One of the particular issues mentioned in the committee's report was the hope that a standardized definition of a fund's 'administrative expenses' could also be examined as part of a review of AAS 25. Standardization of the measurement of expense ratios and investment returns was a key issue raised by many of the participants in the choice-of-fund debate. Clearly, this is something that needs to be addressed in the accounting standard. To ensure that members have useful information for their decision-making in a choice environment, there is an obvious need to standardize the measurement of performance ratios to ensure they are comparable, and prescribing how they are measured in an accounting standard enhances their reliability. This is similar to the accounting standard prescribing measurement of earnings per share (EPS) to ensure consistency among company reports. Present industry guidelines on calculation of management expense ratios and other performance ratios are unreliable, even on the admission of industry insiders, because there is scope to include or exclude various items. A revision of AAS 25 thus presented an opportunity to enhance financial disclosures by superannuation funds by prescribing standardized measures.

ED AAS 25 was issued by the ICAA in mid-2001. The ED does not make any reference to standardization of ratio calculations, nor does it provide standardized definitions of items such as administration expenses. It does, however, propose to standardize the reporting format (DBPs currently have two alternatives) to only one reporting format, that is, a statement of net assets and a statement of changes in net assets. This is an alternative reporting format presently allowed for defined benefit plans but prohibited for defined contribution plans. Therefore the ED AAS 25 proposal would effectively mean that all DCPs would have to switch to this archaic format. Inexplicably, there does not seem to have been any consideration given to changing the reporting format to the recently introduced statement of financial position and statement of financial performance. Also inexplicably, the ED proposed to eliminate preparation of cash-flow statements by superannuation funds. How will this improve fund reporting? Judging from the submissions to ICAA on ED AAS 25 from accounting professionals and others, the proposals are viewed as a retrograde step. A valuable opportunity was presented to both the accounting profession and the standard setters to redress major deficiencies in superannuation fund financial reporting—that opportunity has been lost.

Access to Fund Financial Reports

The second issue that needs to be addressed in regard to superannuation fund disclosures is access to fund financial reports. As I mentioned previously, under

the Corporations Regulations disclosure requirements, superannuation funds are required to provide abridged financial information in an annual report, and the full financial report if requested by a member. This is similar to the company reporting requirements where concise financial reports are generally provided to shareholders and full financial reports are provided only on request.

How does this work in practice? My experience, both as a fund member and a researcher of fund disclosure practices is that superannuation fund trustees and administrators are reticent in providing their financial reports. Every year when I receive my member statement and the annual report with the abridged financial information, I contact the fund and request a copy of the full audited financial report. Invariably I receive in the mail another copy of the annual report. I then have to contact the fund again before I finally receive the financial report. Is the fund trying to hide something from members? I do not think so. I think that so few people look at the full financial reports that even the administrative staff working at the fund are unaware of their existence. How generalizable is this one observation? My research experiences confirm that this is not isolated.

As a researcher I have sought superannuation fund audited financial reports for two studies during the past eight years. Because superannuation funds are not required to lodge their reports with a regulator (as companies are), the only source for these reports is the trustee of each fund. With thousands of employer-sponsored funds it is no mean feat to discover the names of the funds and their contact addresses.

In the first survey conducted in 1995 (as part of my PhD thesis), requests were sent to a sample of superannuation funds for their fund financial reports. Of the three types of funds surveyed (corporate, industry and public sector), by far the lowest response rate was from corporate funds (40 per cent cf. 66 per cent and 71 per cent respectively). While there was a large number of corporate funds that did not respond at all, 8 per cent did send a letter declining to participate, many stating or inferring that the reports are confidential and the trustees were not prepared to release them to me. At that time there were no legislative requirements for funds to disclose information to third parties.

Before the next survey, disclosure provisions in the SIS legislation came into effect which required trustees to provide copies of their audited financial reports to any person requesting them. ISC Circular No. I.D.1 states: 'apart from employers, members and other concerned persons, other parties may be interested in information relating to a fund from time to time. This might include analysts, academics or journalists.' This provision was included in the SIS legislation to make superannuation funds subject to public scrutiny without the need to lodge their financial reports centrally with a regulator.

In 2000, as part of a project examining corporate disclosures of defined benefit superannuation obligations, I wrote to all the trustees of the defined benefit superannuation funds sponsored by the top 500 companies, requesting their funds' audited financial reports. The response to my initial request was poor; only twenty-five funds (10 per cent) sent the reports I had requested. It was evident that many trustees did not know about their obligations under the SIS legislation

to provide fund reports on request. A number refused to provide the reports citing reasons such as:

- 'It is not the fund's policy to generally circulate such information';
- 'This is private information'—a fund with 20,000 members;
- 'The report is not a public document';
- 'This information is confidential and I am not in a position to provide them to you';
- 'As you are not a member of [X] superannuation fund we cannot issue you with these reports'; and
- 'I have been unable to locate that you are a member of [Y] superannuation fund . . . [and therefore] I cannot establish how you qualify [to receive the reports]'.

The follow-up letter included reference to the SIS requirements, hinting that the trustees would be in breach of the legislation if they did not comply with the request. This seemed to improve the response rate with an additional 40 per cent sending the requested reports. Surprisingly, a few more questioned my eligibility to receive this information and suggested I was misinterpreting the regulations. In one case the company compliance manager claimed I had 'misquoted' the provisions. In another case the representative claimed that the regulation was 'morally wrong' and simply refused point blank to provide the report.

The lessons that can be learned from these experiences are that many trustees are not aware of their disclosure responsibilities under the legislation, and, rather than transparency, there is a culture of concealment, particularly among corporate defined benefit superannuation plans. This reluctance to disclose financial reports is also made evident by the absence of financial reports on fund websites—I have yet to find a superannuation fund website on which the audited financial reports are available.

No matter how earnestly regulators work at establishing good standards of disclosure, ultimately it is a question of whether disclosing entities are prepared to abide by the spirit of the rules. Yes, the accounting standards could be improved, and perhaps the auditing could also. However, it all boils down to the governance practices of the entities, and good governance requires effective and ongoing disclosure.

Although there have been concerns expressed about super fund disclosure by various reviews including those undertaken by the Senate Select Committee on Superannuation and the Superannuation Working Group, as well as calls in the media for better disclosure, little progress has been made towards remedying the inadequacies of current disclosure standards and practices. Before the Pandora's box of choice-of-fund is opened, there needs to be put in place a set of effective disclosure rules which ensure that trustees are fully accountable to their members, and members and others have full access to relevant, reliable and comparable information about the financial position and performance of the fund. From my perspective, present superannuation fund disclosure rules and practices are opaque; there is a long way to go for they become transparent.

Dr Natalie Gallery, University of Sydney

THE UNIVERSITY OF SYDNEY PACIOLI SOCIETY MEETING ON INTERNATIONAL ACCOUNTING STANDARDS, 16 OCTOBER 2002

INTERNATIONAL ACCOUNTING: CONVERGENCE OR COLLISION?

Ladies and Gentlemen, it is a great honour and a pleasure for me to be here and to share with you some of my thoughts on the current developments of international accounting and reporting. The background against which I will comment on the theme are the current developments in the European Union. In the following, I would like to provide some insight into the recent regulation enacted by the EU with regard to the application of IAS, and potential difficulties member states face when this will come into effect; this should be of some interest for the discussion in Australia since, I understand, Australia plans to adopt IAS as of the 2005 reporting period. Finally, I will give some consideration to whether it is desirable to strive for a global set of accounting standards.

As you are aware, the EU is a supranational regulator, which exercises its powers only with the consent of all or a large majority of member states. Accounting standards harmonization had already started back in the 1960s. The major regulation includes the Fourth and the Seventh Directives, which regulate the individual and consolidated financial statements of all (more than 2 million) limited liability companies. Many claim these directives were a success—and in some sense they were: member states have strongly diverse legal and institutional backgrounds, and agreeing to a single core set of accounting standards *is* a success; the directives introduced consolidated statements, which was new for many member states, too. The states also have different approaches to national standard-setting. Some have legally accepted standard-setters, others just organizations which issue opinions and recommendations; half of the member states have standard-setters that are public committees, whereas the others have private organizations; and also the legal status of the standards ranges from mandatory to just recommendations. So, to bring some commonality on them is a success. On the other hand, the actual harmonization achievements were low. Considering that countries like Germany, the U.K. and France are member states, you can imagine how difficult it can be to foster agreement among them. The key word was options. Options were introduced in case there was no sign of a compromise. The two directives contain more than a hundred options. In practice, major differences would prevail, not just because of the options, but also as transposition into national laws and interpretation were influenced by national regulation. For example, member states do have a different understanding of what 'realization' or 'probable' means.

(Just as a reminder: The first draft of the Fourth Directive in 1971 was prepared under heavy German influence. Shortly afterwards, the U.K. joined the EU. Obviously, the U.K. was not at all happy with that draft, and besides lobbying hard to get U.K. standards into the directive, the U.K. was a major force behind founding the [then] IASC—which was part of a fall-back strategy in case they had difficulty with getting U.K. thinking into the directives—which they did not.)

The EU Commission, well aware of the limited success, struggled hard to come up with a solution. At first it tried to achieve mutual recognition with the U.S., which was not successful. The Daimler Benz listing on the NYSE broke the ice, and the EU found a new strategy in 1995, that was simply support of IAS, and in the course to pave the way for an efficient European capital market. In 2000 it proposed the idea of adopting IAS for listed corporations directly. In July of this year, the regulation was finally passed. It requires a mandatory application of IAS for all listed corporations domiciled in the EU by 2005. This would affect some 7,000 corporations of which currently only some 300–400 apply IAS. What is remarkable is the fact that the regulation has immediate effect, there is nothing national legislators would have to do. Interestingly, there appear to be countries that go faster: For example, Greece recently enacted legislation shifting the deadline from 2005 to as early as 2003. This would mean Greek corporations would have to draw up IAS statements already by 2002.

By the way, the internationalization does not halt at preparing financial statements, it is likely to spill over to auditing, as well. The FEE, which is the association of European auditors, recently proposed that statutory audits of financial statements should be performed in compliance with International Standards on Auditing, and that a forum of European national auditing standard-setters should be installed to support their implementation in the member states.

The IAS regulation also provides an option for the member states to permit or require companies which prepare consolidated statements, or even all companies, to use IAS instead of national law. It remains to be seen to what extent the states will make use of these options. For example, in Germany the current view is to pass all the options to the companies. A major problem is income tax measurement which currently relies on financial income. Since tax assessment must be on the same basis for all firms, it cannot be dependent on what set of standards they apply for their financial statements. I expect that the tax laws will come to include separate recognition and measurement rules to assess taxable income; this will increase clerical work for many, particularly smaller companies. Dividend distribution is also contingent on the income reported in the financial statements. This will mean that the legislator will have to introduce new rules for retained earnings if it continues to consider dividend payout restrictions important.

Another issue is that the IAS regulation leads to a loss of power in setting accounting standards within the EU. The *de facto* delegation of the development of accounting standards to an international private standard setter is a remarkable move, because it contrasts with the usual pattern of accounting standard setting which is the domain of political interest groups that do not want to lose influence. To address concerns about the influence on accounting standards, the EU Commission set up an endorsement mechanism which would guarantee that IAS are only adopted if they conform with the 'true and fair view' that is imminent in the accounting directives, are conducive to the European public good, and meet the criteria of understandability, relevance, reliability and comparability. All existing and future IAS should be evaluated along these lines before they are endorsed.

In 2001, the European Financial Reporting Advisory Group (EFRAG) was established as a technical expert committee to provide a quick technical assessment of IAS in the European context. Not surprisingly, the EFRAG recently proposed to the Commission to endorse all existing IAS *en bloc*. It is expected that rejection of a future IAS would be a rare exception—nobody wants to have EU IAS—but it must be a credible threat for the endorsement mechanism to have any meaning. To avoid the rejection of a standard, the EFRAG is expected to proactively influence the development of standards.

There are practical obstacles with adopting IAS. One was encountered by the EU Commission when it realized that endorsement of IAS requires publication of the standards in the official journal of the EU, which is publicly available to everyone. Since the standards are copyrighted, and publications are a major source of revenue to the IASB, a deal had to be negotiated which essentially includes a waiting period before new standards find their way into the official journal. Translation is another issue, but I do not want to get into detail on this.

More controversial is how to guarantee uniform interpretation, practical application and enforcement of IAS. Experience with the directives teaches us that companies and accountants tend to interpret standards based on their background, which is a national one. It has not become clear yet how uniform interpretation will be ensured; many would appeal to the IFRIC to offer additional guidance.

I am not sure whether the interpretation of IAS will be a major future task of national standard setting bodies. Clearly, their role will diminish if IAS is adopted. Fortunately, as an Austrian, this would not be critical, as we currently do not have a standard setter anyway. But there is much discussion going on in Germany, where the private standard setter was established only in 1998 and has since been quite controversial. The question of the role of national standard setters will be more important in countries that have strong standard setters, such as the U.K. I doubt if national bodies should become too much involved in interpretation of IAS—aside from truly national issues.

Similar thoughts concern enforcement. Diversity reigns in the enforcement systems of the EU member states: there are currently approximately forty enforcement organizations in the fifteen EU-Member States. Some are set up by the stock exchanges, others are part of stock exchange regulatory bodies or government departments, and others are private bodies. A substantial number of countries do not have an oversight system that goes beyond simple formal checks. While a European securities oversight body was discussed as a potential way to assure enforcement, this is not what the EU Commission proposes. The Commission seems to want to rely on national enforcement with a committee on the European level to coordinate enforcement practice in a consistent way across countries.

Let me finally come to the grand picture of global standard setting. When the IASC was transformed to its new organization it adopted as another objective the convergence of national accounting standards to—well—IAS, or IFRS as they will be called in the future. Actually the IASB and the FASB launched an effort to eliminate major differences between their standards. What we have seen so far is often a one-sided convergence, namely of IAS to U.S. GAAP. However, to be

fair, there seem to be a few major departures, at least in the plans, and I just mention two: employee stock options, and a full fair value measurement option for financial instruments that the IASB proposed.

I am not convinced that moving into the direction of a single global accounting standard is the best of all worlds. It creates a monopoly. We know that monopolies do have some drawbacks, even in settings with network effects. One is that compromises may become necessary as more nations want to contribute their ideas to a global standard. Political influence may focus heavily on the then single standard setter; examples would include lobbying endeavours for expensing stock options and against fair value measurement. Standard setting may become slow and inefficient, innovation may slow down, and so on.

Competition, just like in product markets, may have a virtue along these dimensions; the downside, of course, is that comparability is somewhat reduced. But I think this argument has been exaggerated; 'apples-to-apples' comparisons are difficult even under the same regime. What I, as an academic, would find particularly attractive about competition is the fact that it is difficult if not impossible to rank standards on a better–worse scale. Is the movement to fair value good or bad relative to sticking to historical cost? Is segmentation according to the management approach 'good' or 'bad' relative to the risks and rewards approach? Well, I do not know how to measure the effects. Markets might provide answers, if one lets them. In particular, I do not believe there will be a race to the bottom; many companies would find it beneficial to signal high reporting quality by choosing a more rigorous standard. Innovations could be put on the test. However, this would require having rather diverse standards, not basically converged ones.

(The New Market at the Frankfurt Stock Exchange allows listed corporations to select either IAS or U.S. GAAP, and some 50 per cent choose each. The New Market may not be the best example, I know, because there were many things going on, and the stock exchange announced it would close it by the next year. But the principle is worth considering.)

What I believe, though, is that regulators should restrict the set of standards companies would be able to choose from. Let me call this 'controlled' competition. I know the current developments in the EU, and in Australia, are in contrast to this, as they rely on a single standard. But perhaps this is just to give some counterweight to the current U.S. position which—still—considers U.S. GAAP the best standards in the world, and does not accept other standards without reconciliation. If the U.S. opens up, then why not have two or three different standards compete in the corporate world? Let me just finish with this scenario.

I hope my remarks gave you some useful thoughts to consider. Thank you.

Alfred Wagenhofer, University of Graz

HARMONIZATION, CONVERGENCE AND BEYOND

In this presentation I will try to answer three questions: What were the problems with the old IASC? Will the new IASB work? What are the likely problems? In trying to answer these questions I will adopt a New Zealand perspective. However,

I caution that the views expressed are my own and are not the official views of the Financial Reporting Standards Board, which are only determined after deliberation and due process.

Before I begin I think it is worthwhile outlining New Zealand's current approach to harmonization and convergence. The FRSB has had a strong commitment to international harmonization, which is evident from its participation on PSC, G4+1, and JWG. In 1998 it began a trial policy to issue almost verbatim (except for minor changes to terminology or format) exposure drafts based on either IASC or AASB standards. With the formation of the IASB, the FRSB revised its position. The current view is expressed in ED 92, *Preface to Financial Reporting Standards*, which was based on the AASB's Policy Statement 4, *International Convergence and Harmonization Policy* (April 2002). The bottom line is that the FRSB is to develop financial reporting standards on the basis of a rebuttable presumption that the standards of the IASB and PSC represent best practice, and that the board will only depart from those standards in rare and exceptional circumstances (Hagen and van Zijl, 2002).

It is fair to say that the '2005 Directive' from the Financial Reporting Council has thrown the FRSB and ASRB off balance. The two boards are currently reassessing the harmonization and convergence strategy.

With that background, let us go back to try and answer the three questions posed earlier.

What Were the Problems With the Old IASC?

Timeliness A few years ago I wrote a paper on a New Zealand perspective to harmonizing with overseas accounting standards (Bradbury, 1998). In researching that paper I began by listing the first ten standards issued by the ARSB (the former board to the FRSB) and the first ten IAS. (Prior to this date, standards were modified copies of English standards.) The first SSAP was issued in November 1974 and displayed the IASC crest on its cover. My conclusion from this study was that the IASB and the FRSB pursued their own agendas.

This suggests that the timeliness with which the IASC could address topics that were important to local standard setters was an issue that reduced the harmonization between FRS and IAS.

Local Accounting Standards The same study also indicated another reason for loss of harmonization—the preference for local accounting standards. Wholesale adoption of IAS seemed to be inappropriate because of legal (consolidation accounting), commercial (farm inventories, interim reporting, depreciation) and professional (auditing requirements) differences.

On the other hand, too many accounting alternatives found their way into international standards, such that IAS were perceived to be weak. The move to having a *benchmark treatment* and an *allowed alternative treatment* completed in 1993 represents a major step in improving the quality of IAS.

Support and Enforcement The IASC was founded in June 1973 with limited membership. Its major support was from the accounting professions (through its

association of IFAC). However, accounting professions have been relatively weak in enforcing their own standards and typically have had to rely on legislative support. For example, in New Zealand we have a statutory board (the ASRB) to provide legal backing to standards developed by a professional committee (FRSB).

Clearly the agreement to work with IOSCO and produce a set core of standards was a major task undertaken by the IASC. In May 2000 IOSCO recommended to all its members that they allow multinational issuers to use IASC standards, as supplemented by reconciliation, disclosure and interpretation where necessary to address outstanding substantive matters at a national or regional level. This endorsement by IOSCO was a major step in the acceptance of IAS.

Will the New IASB Work?

It just might because it has addressed each of the three weaknesses noted above.

Timeliness At the present time most jurisdictions have a similar core of accounting standards. So while the priority of standards might have been different when accounting standards were first set, timeliness of initiating authoritative guidance is less of an issue.

Furthermore, the IASB has a board comprising mainly full-time members and research staff. It can react much more quickly and more comprehensively that the old IASB.

Local Accounting Standards In today's global economy local differences are not as important. Furthermore, financial analysts seem to think that the choice between accounting methods is often arbitrary and therefore 'comparability' is one of the more important qualitative characteristics.

In April 2001 the IASB announced its 'improvements project'. While currently in the exposure draft stage, this project will eliminate many, if not all, alternatives in IASC standards. This will undoubtedly improve the quality of IAS.

Another major improvement in the quality of standards is the change in the goal of the IASB. Instead of harmonizing (to perhaps the lowest common denominator) the goal is now to converge to 'a single set of high quality, understandable and enforceable global accounting standards' (IASB Mission Statement).

The IASB partitions its workload into 'Active Projects', 'Active Research Topics' and 'Other Topics'. Its active project on 'First-Time Application of IFRS' is also a major move to enhance acceptance of international accounting standards. It will provide corporates and countries with the mechanism to adopt IFRS.

Support and Enforcement In addition to the re-organization of the IASC to achieve a full time independent standard setting board, a major support structure within the IASB is the role of National Standard Setters. Seven NSS have a privileged position in that they have an IASB member resident in their jurisdiction. Australia and New Zealand have a joint liaison member (Warren McGregor). Given the size of our combined capital markets we are in a very privileged position to have such representation.

What Are the Likely Problems?

Timeliness The pendulum has swung the other way. The new timeliness problem relates to NSS trying to keep up with the IASB. NSS typically comprise part-time members who are now facing an avalanche of discussion papers. As a part-time FRSB member I have difficulty keeping up with a full-time IASB and also the need to try to provide input into local FRSB projects.

This is not just an external issue. The IASB has two part-time members. These board members have to read the same amount of material as the full time members. So I wonder how long this situation will continue?

Local Accounting Standards While in a global economy local accounting differences are not *as* important, they are nevertheless still important. The major issue for New Zealand is how to incorporate (a) differential reporting and (b) public sector accounting within our version of IFRS.

The IAS has an 'active research topic' on 'The Application of IFRS to Small and Medium-Size Entities and in Emerging Economies' which might go some way to resolving the differential reporting issue. However, IFRS are aimed primarily at consolidated financial statements of multinational listed companies, whereas New Zealand accounting standards are applicable to all entities that provide general purpose financial reports (e.g., listed companies, unlisted companies, not-for-profit entities and public sector entities).

A major issue for New Zealand is that for over a decade the FRSB has had a policy of issuing sector-neutral standards. Including public sector within the private sector standard setting framework has resulted in higher quality standards. At the cost of having a longer 'due process' it makes the accounting more robust and comprehensive. The problem is, how does the FRSB maintain its commitment both to issuing sector-neutral accounting standards and to international convergence. Does it:

1. Add additional paragraphs within IFRS relating to public sector activities? It is unlikely that these standards would still be described as IFRS.
2. Clip-on a couple of appendixes relating to differential reporting and public sector accounting? This would not give equal prominence to both private and public sectors.
3. Have two separate standards? Does this mean we have two boards? This seems to be a retrograde step.

While conceptual frameworks are all very similar, each jurisdiction has its own. (Conceptual frameworks are similar but not identical. As the New Zealand *Statement of Concepts* applies to both public and private sectors it employs sector neutral terminology and includes a discussion of service performance reporting.) It would seem that a prerequisite to converging to a higher quality set of standards would involve the convergence to a higher quality conceptual framework. At a minimum, an 'improvement review' would be desirable.

Support and Enforcement My concern here is what happens to the NSS support for the IASB after 2005 or whenever full convergence is achieved. The current

IASB is built on a partnership role with NSS. After 2005 will our own constituents say: Participation in international projects is expensive and a significant 'tax' on professional membership fees. Why do we need an FRSB? Why not simply adopt IFRS? If there is no FRSB, what happens to the role of the NSS after 2005, and therefore what happens to a major supporting (and perhaps funding) structure of the IASB?

If we think of the role N.Z. and Australia play in international standard setting, we 'punch above our weight'. In terms of the size of our capital markets we could ask, why are we there? We are there because we (as preparers, auditors, users of financial statements and as academics) have expertise in standard setting process. We have a significant amount of intellectual capital invested in the standard setting process, which we have applied to international forums (such as G4+1, JWG, IASB).

A major concern is that if we do not continue to participate in international standard setting, then will this intellectual capital erode? The FRSB's (and AASB's) role is already changing from one of standard setting to one of advocacy. We do not set standards any more. We submit comments on them. In ten years time will the role of the FRSB further move from one of advocacy to one of simply educating constituents of the new international rules? Will we as academics simply teach what is prescribed rather than what might be? Will we challenge what is?

All I can do here in this forum is raise these concerns and hope that FRSB, AASB and IASB consider these issues as we move to convergence and beyond.

Michael Bradbury, UNITEC Institute of Technology

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ACRONYMS

AASB	Australian Accounting Standards Board
ARSB	Accounting Research and Standards Board
ASRB	Accounting Standards Review Board
FRS	Financial Reporting Standard
FRSB	Financial Reporting Standards Board
IAS	International Accounting Standards
IASB	International Accounting Standards Board
IASC	International Accounting Standards Committee
IFAC	International Federation of Accountants
IFRS	International Financial Reporting Standard
IOSCO	International Organization of Security Commissions
JWG	Joint Working Group of Standard Setters
NSS	National Standard Setter
PSC	Public Sector Committee
SSAP	Statement of Standard Accounting Practice

AN AUSTRALIAN PRACTITIONER'S PERSPECTIVE

1: The Relevance of History

Since accounting came into relatively widespread use (albeit widely misunderstood widespread use), there have been four significant eras:

1. The agrarian era (first 2000 years), in which the earliest recorded example of bookkeeping was in Sumeria, where records of livestock and crops were recorded in symbolic form on clay tablets and kept in sealed clay jars (despite the obvious name connection, this is not the source of the term 'jam jar accounting').

   Sumerian artistic techniques were both sophisticated and ornate. Cuneiform writing dates back to before 3000 BC and clay tablets and clay cylinder seals were used to mark documents and record property.

   The primary focus of reporting throughout the Agrarian era was on assets and on stewardship. Even feudal accountability maintained this assets/stewardship focus.
2. The mercantile era (fifteenth to eighteenth centuries), which saw the commencement of voyage accounting and subsequently the formation of joint stock companies.

   There was a considerable increase in the level of sophistication in capital formation during this period. However, accounting maintained its historic/stewardship focus. For example, returns from successful voyages were recorded almost as windfalls (and given the risks associated with sea travel and the nature of the vessels, 'windfall' was an apt description).
3. The industrial era (thirteenth to twentieth centuries) during which the need for more sophisticated financial reporting began to emerge. However, it was not until the initially relatively narrow base of industrial asset ownership became much more widespread that the pressure for better accounting information really developed.
4. The knowledge/information era (commencing late in the twentieth century), characterized by the exponential increase in the level of information and knowledge, combined with the increasing ease with which it could be accessed by a widespread and rapidly expanding proportion of the community, transformed the economic landscape.

   However, accounting development did not keep pace with this very significant change. Nor did it adapt at a rate anywhere near consistent with the rapid growth and emerging dominance of the financial and service sectors in the more developed economies.

Traditional accounting coped relatively well in the first era, adequately in the second, inadequately in the third, and so far hasn't even begun to get to grips with the fourth era.

Accounting is at a watershed. That watershed is the transition from the present mixed model of historic costs and market values to a full market value system. Sadly, the reactionary elements of the profession are preventing accounting thinking

(an oxymoron in some people's view) from getting to grips with the current difficult and increasingly dynamic era.

The relevance of this brief historical overview lies in the fact that accounting had developed enough problems of its own, even before globalization became the issue that it is today, and even before issues such as international harmonization and convergence came along.

2: The Conceptual Framework

The conceptual framework is commonly presented in a triangular shape which you are all familiar with. SACs 1 to 4 are at the top of the triangle and the incomplete parts of the conceptual framework at the base (e.g., measurement). I note in passing that only accounting standard setters would build a triangle from the top down.

In essence, the conceptual framework: (a) is incomplete, and (b) has holes in the bits that are complete. To make matters worse, the IASB, whose standards Australia has committed to adopt, and especially the IASB staff who develop the discussion papers for the board's consideration, are trying to solve all accounting issues by trying to develop solutions that can be squeezed into the existing definitions of assets, liabilities, income and expense.

Conceptual framework inadequacies are not just an IASB problem. As time goes on, an ever increasing proportion of accountants will have learnt their craft at universities and other educational institutions whose courses are significantly focused on the (existing) conceptual framework. Thus, as time progresses, the proportion of accounting practice influenced by previous notions of what was generally accepted accounting practice will be diminished and replaced by practice driven, or at least substantially influenced by, the accounting conceptual framework.

However, many accounting issues are complex. Furthermore, the simple fact is that you can't fit (large) square pegs (i.e., all accounting problems) into (small) round holes (i.e., the existing framework definitions).

The solution to this dilemma is obvious. Complete the framework.

Yet sadly, there has been no visible progress in Australia on completing the conceptual framework since SAC 4 almost a decade ago.

Worse still, it is unlikely that any significant progress will be made in Australia in completing the framework for many years.

3: Materiality

The concept of materiality is sufficiently reasonably stated in the accounting standards and accounting literature, and so widely understood that it does not have to be repeated here.

In most forms of endeavour the aim is to achieve the maximum impact with the generally limited resources available.

In the capital markets today, some 65 per cent of equity market values are represented by intangible assets. These include identifiable assets such as brands, mastheads, licences etc. and goodwill. Yet despite their obvious materiality and the significant problems associated with intangible assets, there are no Australian standards on identifiable intangible assets and only one Australian standard on goodwill.

In other words 97 per cent of accounting standard effort has been focused on 35 per cent of the financial statements.

Even in the case of the goodwill standard, controversy has surrounded this standard since its first issue in 1988. The obvious solution to this controversy was to explain to corporates, to users and to the profession that goodwill amortization rules were about the concept of capital maintenance and intergenerational equity.

Instead, the IASB took the easy, and for the present, the popular way out by removing the mandatory amortization rules.

The goodwill standard is thus to be changed from its twenty year amortization basis to a permanent diminution of value basis.

This is like moving from 'water on a stone' to the 'big bang' theory.

Simply put, the most important balance sheet items in today's world have been totally or largely ignored by the standard setters both at a conceptual and at the accountings/standards level.

The one area of intangible assets that standard setters have focused on has never had its basic logic and conceptual support ever adequately (or at all?) explained to the business community or the profession.

In other words, inadequate development of the conceptual framework has not only caused standard setters to largely ignore the most important parts of the balance sheet (i.e., intangible assets) but to make a mess of that part of intangible assets (i.e., goodwill) which they did consider.

Unfortunately the problems caused by the inadequacies (an incomplete state) of the conceptual framework are not confined to intangible assets.

4: Why Mandatory Adoption of IASB Standards Is Wrong

Saying anything against international standards is like making adverse comments on motherhood. Despite my role on IFRIC (which in broad terms is the IASB equivalent of the UIG), I am not a supporter of mandatory adoption of IASB standards.

Even New Zealand at least has a rebuttable assumption that IASB standards are world's best practice standards. It almost goes without saying that the assumption can be rebutted in many cases.

However, you have all heard the benefits of international harmonization being trumpeted from the rooftops.

The reality from Australia's perspective is different. The reasons why mandatory adoption of IASB standards is not the panacea its advocates proclaim include the following:

1. There is too much paper being issued and consistency and quality have inevitably slipped.
2. Australia's particular accounting needs and Australia's capital market needs have been both ignored and made irrelevant by the push for and acceptance of mandatory adoption.
3. Australia's legislative setting process has been abdicated to an offshore body on which it has only one representative (and that's not necessarily permanent).

4. It will cause a serious loss in Australia's intellectual capital and in Australia's standard setting capabilities. Australia will inevitably cease to be an international centre of accounting excellence.
5. Mandatory adoption of IASB standards will have serious adverse impacts on Australia's cost of capital when capital becomes relatively scarce again.

Too Much Paper Too Quickly

The IASB has replaced the former IASC and is presently involved in an 'orgy of standard setting reform'.

The trouble with orgies is that unless you are involved in the orgy yourself you can take a critical and objective view of it.

In its enthusiasm for reform, and driven by the need to fix many of the glaring problems in the existing IASC standards, the IASB is producing too much paper too quickly.

There is currently so much output from the IASB that: (a) quality is slipping, and (b) most Australian (and indeed most international) companies and practitioners and even most partners in the larger accounting firms are not even reading what is being produced by the IASB.

Mandatory Adoption

The FRC decision to announce mandatory adoption has since been rationalized on the basis that the announcement would shock the corporates into taking harmonization seriously and to start to prepare for the introduction of the new standards.

The Australian corporate view is that Australia is a long way away from the IASB. The IASB is, after all, on the other side of the world.

The corporates also think that mandatory adoption makes their views irrelevant. As a result, most corporates no longer bother to get involved in responding to IASB, or even AASB exposure drafts, etc. This is because they believe that in practical terms their views will either be ignored or will make so little impact that there is no point in even being involved in the process.

Legislative Due Process It is widely perceived that the Australian accounting community and the AASB have been effectively emasculated. This is because adoption of IASB standards by Australia is now mandatory.

While international harmonization might seem like a good idea in theory, the reality is that Australia is only one voice at the IASB table. This is despite the fact that compliance with AASB standards is mandatory by law in Australia.

Thus what has happened is that the legislation setting role of parliament has not just been delegated to the AASB (a very rare privilege) but that legislation setting role has now been abdicated to the IASB where Australia is outnumbered thirteen to one.

From a parliamentary and constitutional perspective, this is simply unacceptable.

Loss of Intellectual Capital

Australia, to date, has been a world recognized centre of excellence in accounting standard thinking. This has also generated significant benefits for our capital markets

(e.g., relatively rapid introduction and use of new financial instruments, more developed and more sophisticated capital markets, etc.).

However, mandatory adoption ultimately drives the best people out of standard setting and discourages the best people from participating in the process, because they perceive that their contribution is no longer relevant (and it probably isn't).

Loss of the advantages of competitive tension and loss of iterative interchange between standard setters inevitably follows.

The end result is that not only is Australia's intellectual capital pool diminished, but the whole international standard setting process suffers.

Cost of Capital

At the most fundamental level, Australia is a capital scarce economy.

With international harmonization, combined with the lack of any effective international enforcement mechanism, the best that Australia can now hope for, given mandatory adoption of IASB standards, is to become a 'me too' borrower in the world's capital market.

As a large importer of capital, Australia will pay dearly for its 'me too' status when capital becomes scarce again.

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GARY J. PREVITS, HELEN M. ROYBARK AND EDWARD N. COFFMAN

Keeping Watch! Recounting Twenty-Five Years of the Office of Chief Accountant, U.S. Securities and Exchange Commission, 1976–2001

This article adds to the literature of accounting regulation by providing background, including facts and circumstances relating to a quarter century of SEC activity preceding the events identified with the reshaping of the capital markets following the dot.com collapse and the attack on the World Trade Center, 11 September 2001. The subsequent collapse of Enron, the bankruptcy of Worldcom, the dissolution of Andersen, one of the Big Five accounting firms, and the passage in the United States of the Sarbanes-Oxley Act, collectively have ushered in a new era of public–private capital market relationships. This study provides guidance and outlines topics useful to future researchers undertaking assessments of regulatory policies and the individuals involved in their administration.

From 1976 to 2001 five individuals played a significant role in the development of the U.S. Securities and Exchange Commission's disclosure and reporting practices by virtue of their office and the collective influence of their views. A. Clarence Sampson (1976–87), Edmund Coulson (1988–91), Walter P. Schuetze (1992–95), Michael H. Sutton (1995–98) and Lynn E. Turner (1998–2001) directed accounting policy activities at the SEC during these years.

Key words: Accounting policies; History; Office of Chief Accountant; Regulation; SEC chief accountant; U.S. Securities and Exchange Commission.

The U.S. Securities and Exchange Commission (the SEC or Commission hereafter) is more than a public watchdog agency for the buying and selling of U.S. securities. The SEC estimated that 14,100 entities will file annual reports with the Commission in fiscal year 2003 (USSEC, 2002). Simply put, the 'Commission is a small agency with a big mission—protecting investors' (Hunt, 1997, p. 6). The SEC's primary responsibility with regard to financial reporting is to promote full and fair disclosure. To that end, the SEC and its relationship with those who are involved in the communication of information to the capital market community are important.

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The process of such communication is both dynamic and evolutionary; consequently, new or revised administrative interpretations and practices arise in response. While many groups (auditors, preparers, academics, investors) have contributed to the corporate external reporting process, no one group has influenced business reporting more than the Office of the Chief Accountant (OCA hereafter). Eleven individuals have held permanent appointments as chief accountant from the SEC's inception through to 2002. Previts (1978) outlines the background and accomplishments of the first five chief accountants from the beginning of Carman G. Blough's term in December 1935 to the end of John C. Burton's term in September 1976[1] (and see Moran and Previts, 1984, for an overview of the first fifty years of the SEC).

This article identifies and describes important issues and policies that the next five chief accountants, who held office from September 1976 to August 2001, have addressed—A. Clarence Sampson (1976–87), Edmund Coulson (1988–91), Walter P. Schuetze (1992–95), Michael H. Sutton (1995–98) and Lynn E. Turner (1998–2001). Each chief accountant was affected by specific economic and political events which shaped the marketplace (oil and gas accounting, savings and loan crisis, and so forth). However, there are evergreen issues that transcend individual chief accountants and are fundamental topics in a regulatory regime. These topics are identified regularly in the activities of the subjects of our study to include: auditor independence and scope of services; evaluation of internal controls and auditor's responsibility for detection of fraud; the quality of global financial reporting; and the process by which financial reporting standards are established.

While the discussion in this article is directed to those individuals who were permanent appointments to the chief accountant's position, for purpose of a complete record, Figure 1 also identifies the individuals who held this position on an acting basis.

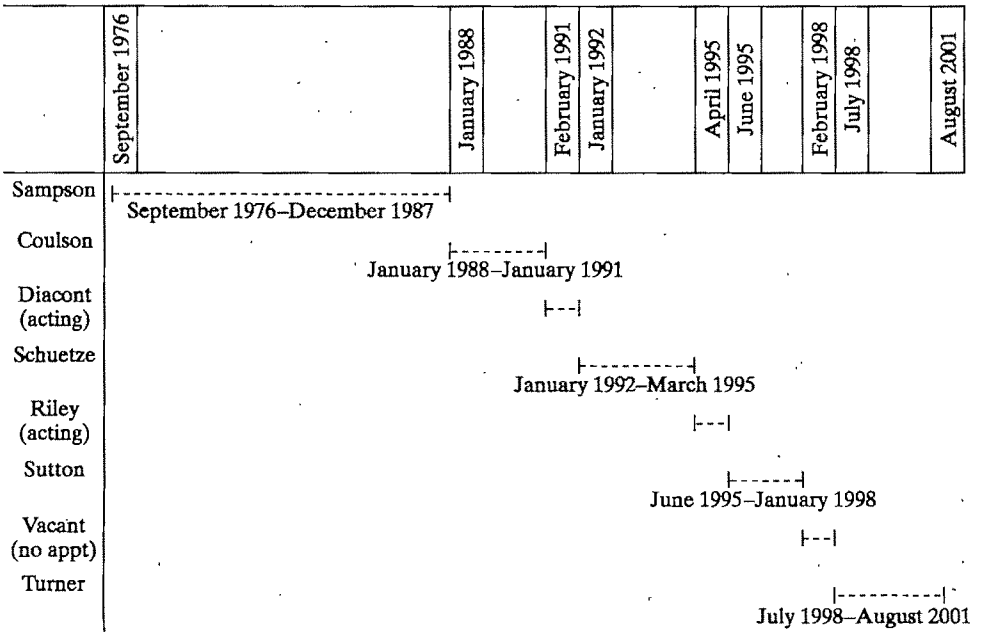
ORIGINS OF THE SEC, THE OFFICE OF THE CHIEF ACCOUNTANT, AND AUDIT INDEPENDENCE AT THE SECURITIES AND EXCHANGE COMMISSION

Federal government regulation of the securities markets followed the 1929 stock market crash (Flesher and Flesher, 1986; Committe, 1989). Initially, the Securities Act of 1933 (the 'registration act') was the responsibility of the Federal Trade Commission, but with the passage of the Securities Exchange Act of 1934, the SEC was established and assumed responsibility for both initial and continuing registration of public company securities (USSEC, 1997c). As an independent, non-partisan, quasi-judicial regulatory agency the SEC has, as one of its primary responsibilities, to promote full and fair disclosure in order to protect the public interest.

[1] The first five chief accountants were Carman G. Blough (1935–38), William W. Werntz (1938–47), Earle C. King (1947–56), Andrew Barr (1956–72) and John C. Burton (1972–76) (Previts, 1978).

FIGURE 1

U.S. SECURITIES AND EXCHANGE COMMISSION HISTOGRAM—
OFFICE OF THE CHIEF ACCOUNTANT, SEPTEMBER 1976–AUGUST 2001



Office of the Chief Accountant

The chief accountant is the principal adviser to the Commissioners and other senior administrators on accounting and auditing matters arising from the various securities laws. Primary activities of the OCA are designed to achieve compliance with accounting and financial disclosures required by Federal securities laws (USSEC, 1997c).

The OCA assists the Commission in monitoring the structure, activity and decisions of private-sector standard-setting organizations, which includes the Financial Accounting Standards Board (FASB), and works closely with the AICPA and other professional organizations that are involved in preparing and disseminating financial information and corporate reports to the capital markets. The SEC also maintains important liaisons with the AICPA's Auditing Standards Board, its SEC Practice Section, its Accounting Standards Executive Committee, and until recently the Independence Standards Board and the Public Oversight Board. The last two entities concluded their operations in late 2001 and early 2002, respectively (USSEC, 2001b; USGAO, 2002). Under the law establishing the Public Company Accounting Oversight Board the SEC has primary oversight responsibility for this new agency, the registration of public company auditing firms, audit standard setting for public companies and the periodic inspection of registered

auditing firms (Sarbanes-Oxley Act, 2002). The OCA also is responsible for making recommendations to the SEC Division of Enforcement which was created in August 1972 (Moran and Previts, 1984).[2]

Although the Commission was established in 1934, a rationale to provide an accounting disclosure system remained unclear until 1938, when the SEC issued Accounting Series Release (ASR) No. 4 (USSEC, 1938). This release established that substantial authoritative support identified with sources in the private sector would serve as the basis for accounting principles recognized by the SEC.[3] In the early 1940s, the SEC codified as Regulation S-X (ASR 12), the form and the content of financial statements to be filed with the Commission (USSEC, 1940).[4] Taken together, a process for identifying the principles, form and content of public company reporting intended to elicit informative disclosure was thus put in place.[5]

Regulation in the U.S.—Mandates and Markets

In his writings on the themes of American regulatory experiences, beginning with the nineteenth-century state railroad commissions, through the Progressive, New Deal and Great Society periods of U.S. history, McCraw (1984) asserts that while multiple theories of regulation exist, only one is very useful, namely the theory of 'public use of private interest'. 'According to this idea, regulators should always exploit the natural incentives of regulated interests to serve particular goals that the regulators themselves carefully defined in advance . . . [R]egulation in America has succeeded best,' he argues, 'when it has respected these incentives instead of ignoring them; when it has based its strategies less on some idealized vision of what the economy should do and more on a clear understanding of what the economy actually is doing. Regulatory strategies framed in ignorance or disregard of real economic conditions and market incentives . . . usually have led only to unfortunate results' (pp. 308–9).

In terms of the capital market demand for audited financial reports during the period of this study, the SEC as the principal Federal regulator was affected by an increasingly popular political mood to seek 'marketplace' (i.e., deregulatory) solutions to resolve economic issues. Deregulation of industries, from interstate trucking and airlines, to electrical generation/energy and telecommunication, has been proposed as the appropriate approach.

During the 1976–2001 period, consistent with this view, CPAs found themselves coming to terms with a longstanding Federal Trade Commission (FTC) initiative

[2] The Division of Enforcement was established to investigate possible violations of the federal securities laws and to prosecute the SEC's civil suits in the federal courts as well as its administrative proceedings.

[3] SEC's formal recognition of private sector standard setting is traced to 1938—ASR 4, 25 April 1938 (Moran and Previts, 1984).

[4] Other important nonfinancial disclosures are specified in Regulation S-K.

[5] The SEC's principal accounting requirements are still contained in Regulation S-X, which governs the form and content of financial statements filed with the Commission.

which sought to reduce perceived barriers to competition including ethical precepts such as CPA prohibitions on advertising, commissions and contingent fees, as well as solicitations of audit clients and competitors' personnel. In the FTC's view, the mandated service role of the CPA as auditor was to be supplanted by a market defined scope of service consistent with the needs of users and the competencies of the providers as bargained for in the marketplace. In this competitively determined market, growth by acquisition of other professional service firms became commonplace as technology expanded the market accessible to firms into one which required global reach. Adjusting the role of both professional and government regulatory regimes to this view posed significant challenges to the national professional CPA organizations, State boards and societies, and in particular to the SEC and its principal accounting policy advisor, the chief accountant. Arguably deregulation, based on market principles, was closer to home, it was more State than Federal and more was expected of self-regulatory processes being disciplined by market response. The service providers and their professional organizations held a larger profile in providing the consumer quality services in a rapidly changing and competitive marketplace.

Since the adoption of ASRs 4 and 12, the private sector has worked with the SEC to improve accounting and reporting standards through various private-sector bodies—most recently the FASB. On 20 December 1973, the Commission specified its recognition of the FASB in ASR 150 (USSEC, 1973), stating that financial statements conforming to standards set by the FASB would be presumed to have substantial authoritative support.[6] Since 2000, when it issued a concept release on the subject, the SEC has participated in forums to develop a globally accepted financial reporting framework, such as found in the standards of the International Accounting Standards Board (USSEC, 2000c).

Accounting authoritative guidance offered by the Commission from 1937 through to March 1982 took the form of Accounting Series Releases. Over three hundred were issued. On 15 April 1982, these were superseded by two new series of releases: Financial Reporting Releases (FRRs) for accounting and auditing related matters, and Accounting and Auditing Enforcement Releases (AAERs) for enforcement matters. Prior releases still in effect were codified in FRR 1 (USSEC, 1988b) and AAER 1 (USSEC, 1988c), financial reporting releases, and accounting and auditing enforcement releases, respectively. As of 31 August 2001, fifty-six numbered FRRs and 1,434 AAERs had been issued. Table 1 and Figure 2 indicate the frequency of these releases for the periods of service of the five individuals in this study.

During the term of chief accountant John (Sandy) Burton in November 1972, additional published staff guidance was developed, when the OCA announced that it would issue a series of Staff Accounting Bulletins (SABs), intended to provide a

[6] In 1976 the SEC appointed the Advisory Committee on Corporate Disclosure to examine the system of corporate disclosure. This committee recommended that the SEC adopt an integrated process to link the reports required under the 1933 and 1934 Securities Acts into a continuous disclosure system (Moran and Previts, 1984).

TABLE 1

U.S. SECURITIES AND EXCHANGE COMMISSION
ACCOUNTING AND ENFORCEMENT RELEASES, SEPTEMBER 1976–AUGUST 2001

Year/name of chief accountant		ASRs[1] 1937–31 March 1982 Accounting	ASRs[2] 1937–31 March 1982 Enforcement	FRRs 1 April 1982–31 August 2001 Accounting	AAERs 1 April 1982–31 August 2001 Enforcement	SABs 1975–31 August 2001 Bulletins
1937–1976	Blough–Burton	143	53	0	0	38
1976		2	5			
1977		12	22			
1978		11	12			
1979		8	6			
1980		7	3			
1981		16	3			4
1982		4		9	3	7
1983				6	16	6
1984				5	28	2
1985				3	36	3
1986				5	40	7
1987				2	51	7
	Sampson	60	51	30	174	36
1988				3	37	6
1989				3	39	7
1990					36	1
1991						
	Coulson	0	0	6	112	14
1991	Diacont (acting chief)	0	0	2	62	3
1992				1	87	
1993				1	76	2
1994				3	124	
1995					12	
	Schuetze	0	0	5	299	2
1995	Riley (acting chief)	0	0	1	38	1
1995					58	1
1996				1	123	2
1997				3	138	
1998					2	
	Sutton	0	0	4	321	3

TABLE 1

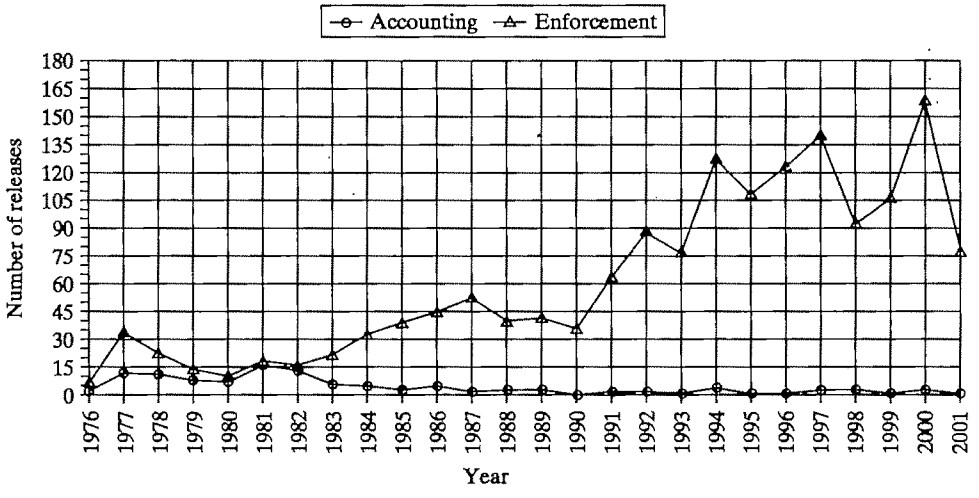
(CONTINUED)

Year/name of chief accountant		$ASRs_{(1)}$ 1937– 31 March 1982 Accounting	$ASRs_{(2)}$ 1937– 31 March 1982 Enforcement	FRRs 1 April 1982– 31 August 2001 Accounting	AAERs 1 April 1982– 31 August 2001 Enforcement	SABs 1975– 31 August 2001 Bulletins
1998	OCA vacant	0	0	1	33	1
1998				2	55	
1999				1	106	3
2000				3	157	
2001				1	77*	1
	Turner	0	0	7	395	4
	September 1976– August 2001	60	51	56	1434	64
	1937– August 2001	203	104	56	1434	102
		ASR 1–307 (A & E)		FRRs 1–56	AAERs 1–1434	SABs 1–102

$ASR_{(1)}$ = Accounting Series Releases: Accounting and Auditing
$ASR_{(2)}$ = Accounting Series Releases: Enforcement
FRR = Financial Reporting Releases
AAER = Accounting and Auditing Enforcement Releases
SAB = Staff Accounting Bulletins
* AAER No. 1400 intentionally omitted by SEC

FIGURE 2

U.S. SECURITIES AND EXCHANGE COMMISSION
ACCOUNTING AND ENFORCEMENT RELEASES, SEPTEMBER 1976–AUGUST 2001



wider dissemination of the administrative interpretations and practices utilized by the Commission's staff (the OCA and the Division of Corporation Finance) in reviewing financial statements. SABs assist in achieving consistency and reduce the likelihood of redundant comments. While these documents do not have authoritative status, they are important guides to accepted practice. As of 31 August 2001, 102 numbered SABs had been issued.[7]

Audit Independence

Auditor independence is more than a requirement imposed by the Federal securities laws. Accountants have both a professional and an ethical duty to observe independence requirements related to their audit clients.[8] The origin of independence for the auditing function within securities laws is often traced to the appearance of Colonel Arthur Carter, then managing partner of Haskins & Sells (now Deloitte & Touche LLP) and president of the New York State Society of CPAs, before the Senate Banking Committee in 1933. Carter's congressional testimony emphasized that independent accountants should audit financial statements of public companies. The official transcript of the 1933 Senate Banking hearing on the proposed securities law includes the following dialogue between Carter and the Committee Chair, Senator Alben Barkley of Kentucky (U.S. Congress, 1933, p. 56):

Senator Barkley:	Is there any relationship between your organization and the organization of controllers represented here yesterday . . . ?
Colonel Carter:	None at all. We audit the controllers.
Senator Barkley:	You audit the controllers?
Colonel Carter:	Yes; the public accountant audits the controller's accounts.
Senator Barkley:	Who audits you?
Colonel Carter:	Our conscience.
Senator Barkley:	I am wondering whether after all a controller is not for all practical purposes the same as an auditor, and must he not know something about auditing?
Colonel Carter:	He is in the employ of the company. He is subject to the orders of his superiors.
Senator Barkley:	I understand. But he has got to know something about auditing?
Colonel Carter:	Yes.
Senator Barkley:	He has got to know something about bookkeeping?
Colonel Carter:	But he is not independent.

The decision to involve an independent auditor and the public accounting profession in a unique role of protecting the nation's public capital markets system—with the oversight of the SEC—traces its social contract basis to these securities laws of the 1930s.

'Since the Commission's creation in 1934, it consistently has emphasized the need for auditors to remain independent' (USSEC, 1998a, p. 2). The Commission's regulations on independence are set forth in Rule 2-01 of Regulation S-X and in the extensive interpretations, guidelines and examples for registrants and auditors

[7] On 9 May 2003 a codification of all SABs, to include removal of material no longer needed due to changes in authoritative standards, was issued as SAB 103 (USSEC, 2003b).

[8] AICPA SAS 1 (AU §220.03) and the AICPA Code of Professional Conduct.

to use in evaluating specific independence questions that are collected in Section 600 of the Codification of Financial Reporting Policies. According to the SEC, 'the basic test for auditor independence is whether a reasonable investor, knowing all relevant facts and circumstances, would perceive an auditor as having neither mutual nor conflicting interests with its audit client and as exercising objective and impartial judgment on all issues brought to the auditor's attention. In determining whether an auditor is independent, the Commission considers all relevant facts and circumstances, and its consideration is not confined to the relationships existing in connection with the filing of reports with the Commission' (USSEC, 1998a, p. 2).

SEC CHIEF ACCOUNTANTS

Chief accountants have dealt with a number of complex accounting and market conditions. A profile of each chief accountant and major issues and policies each addressed during their terms of office is presented in the following section.

A. Clarence Sampson (September 1976–December 1987)

Andrew Barr, the SEC's chief accountant from November 1956 to January 1972, recruited Clarence Sampson to the SEC in 1959. Sampson, a 1953 graduate of the

A. CLARENCE SAMPSON

University of Maryland, spent two years in the Auditor General's Office with the U.S. Air Force (1954–56). He passed the CPA examination (1956) on his first attempt, placing first in Maryland. During his early career, he worked for Arthur Young & Company (1956–57) and Litton Industries (1958–59). He also taught accounting part-time at the University of Maryland from 1959 through to 1963 (Hrisak, 1979).

Sampson's first assignment at the SEC was in the Division of Corporation Finance. He was transferred to the OCA where he served as associate chief accountant for eight years (1968–76), and briefly as acting SEC chief accountant following the retirement of Barr, prior to the appointment of John C. Burton in 1972. He served as deputy chief accountant under Burton and assumed the position of acting chief accountant in September 1976, when Burton left the SEC.

During this period the Moss Bill was introduced in the House of Representatives (U.S. Congress, 1978). This bill, called the Public Accounting Regulatory Act, called for the establishment of the National Organization of Securities and Exchange Commission Accountancy (the NOSA, modelled after the National Association of Securities Dealers), which would consist of public and private participation in the regulation of auditors. This new organization would, under SEC oversight, review the audit work performed by independent public accounting firms, investigate audit inadequacies and complaints and take disciplinary actions where necessary. Public company auditing firms also would be required to register with the NOSA.

The bill did not gain sufficient support for action; instead, the AICPA's private-sector response to support the Division of CPA Firms within the AICPA was furthered as appropriate to the issues of the time. It is noteworthy, however, that a concept which today has led to the establishment of the Public Company Accounting Oversight Board (PCAOB) under the Sarbanes-Oxley Act of 2002 had debuted in the Moss Bill nearly twenty-five years before, during another period of political unrest as to corporate accountability in the wake of Watergate.

Sampson was appointed permanently to the position of chief accountant in August 1978 by SEC Chairman Harold M. Williams. Early in his term, in a June 1979 interview conducted by the *Journal of Accountancy*, Sampson identified several challenges that he felt the accounting profession was facing (Hrisak, 1979). He noted that the 'independence of accountants will continue to be a most essential factor in financial reporting' (p. 50). He then went on to specify that, 'If the accounting profession strives for independence and self-discipline, implements a realistic system for inflation accounting and develops a strong conceptual framework for accounting, it will have overcome some of the major hurdles facing it today' (p. 51). Sampson responded to other interview questions such as:

Question: What do you see as the major challenges facing the Financial Accounting Standards Board today?

Answer: The conceptual framework project is perhaps the most important one. There are still some difficult decisions to make. The immediate questions are the exposure draft on changing prices, foreign currency translation, the definition of elements of financial statements and the consideration of the earnings

> report and the funds flow and liquidity project—both in regard to format and to objectives. I believe the board is now making real progress and in the next year we may see final statements in these areas. (Hrisak, 1979, p. 51)

Several months later at the Accounting Research Convocation at the University of Alabama, Sampson (1979b) in his paper presentation affirmed 'the FASB's conceptual framework project is the most important financial reporting matter facing the profession' (p. 22). He felt that 'the lack of a comprehensive and meaningful conceptual framework has been largely responsible for the past failure of private-sector standard-setting bodies and the recent criticism of the FASB' (p. 23).

Sampson added: 'if the government sets the standards we'd have more of an Internal Revenue Service mentality in financial reporting than we do now. The entire process is effective because the profession is obligated to follow its own standards. And frankly, that approach is consistent with my own philosophy that the government should not do anything that it doesn't have to do. Over time, we've done a number of regulatory things, but we only did those things we had to do' (*JofA*, 1988b, p. 80). For example, Sampson (1979b) noted that:

> While the staff's primary goal is to ensure compliance with standards, such reviews sometimes provide evidence of a need for reexamination of the standards themselves. In these situations the Commission staff will communicate its findings to the FASB staff for their consideration. This type of interaction between the respective staffs should help to improve accounting standards and, thus, corporate financial reporting . . . Accounting series releases (ASRs) are issued by the Commission on various accounting practices and disclosure rules. ASRs have been issued on occasion when the private sector has been slow to react to changing conditions (e.g., accounting for leases, interim financial reporting, replacement cost, etc.). (p. 18)

On 19 December 1977, the Foreign Corrupt Practices Act of 1977 (FCPA) became effective, requiring reporting companies to make and maintain books, records and accounts that, in reasonable detail, accurately and fairly reflected the transactions and dispositions of the assets of the issuer. Reporting companies further were required to devise and maintain a sufficient system of internal accounting controls. Sampson believed that the FCPA would profoundly impact the internal auditing profession because of the increased emphasis on corporate accountability. Responding to this new legislation in February 1978, the SEC issued ASR 242 (USSEC, 1978a), which stated:

> The Commission wishes to call to the attention of issuers, accountants, attorneys and other interested persons the enactment of the Foreign Corrupt Practices Act of 1977 . . . Because the Act became effective upon signing, it is important that issuers subject to the new requirements review their accounting procedures, systems of internal accounting controls and business practices in order that they may take any actions necessary to comply with the requirements contained in the Act. (pp. 1–2)

Speaking before the Institute of Internal Auditors' 38th International Conference in June 1979, Sampson (1979a) noted that 'Challenges to, and pressures on, internal auditors, both individually and as a profession, are abundant as a result of the enactment of the Foreign Corrupt Practices Act' (p. 30) and that 'It is not

surprising that many companies are relying heavily on internal auditors to help answer these questions—and probably even more heavily to implement the solutions. This emphasis certainly will not be short term' (p. 29).

Following the 'oil crisis' of the 1970s, Congress passed the Energy Policy and Conservation Act of 1975 (EPCA). The FASB (1977) issued SFAS 19 (*Financial Accounting and Reporting by Oil and Gas Producing Companies*) in December 1977 to address related reporting issues. The Statement prescribed a form of the 'successful efforts' method of accounting and excluded the 'full cost' method. Following the SEC oil and gas public hearings in 1978, the SEC issued ASR 257 (USSEC, 1978d) in December 1978, which defined the practices of oil and gas producers based on the successful efforts method. This release amended a number of the SEC's previous accounting and reporting requirements for oil and gas producers. The SEC acting precipitously and without significant influence of the FASB, issued ASR 258 (USSEC, 1978c) in December 1978 permitting registrants to follow the successful efforts method of accounting (SFAS 19) or the full cost method (ASR 258). By doing so, many felt that the SEC had undermined SFAS 19 (FASB, 1977) and the policy of ASR 150 (USSEC, 1973) to support the FASB's authority.

Political and economic issues, such as the quest for an improved overall accounting method (reserve recognition accounting [RRA]) as well as public concern for the U.S. to achieve domestic production and 'energy independence' were among the issues found to have caused the SEC's action (Gorton, 1991). The smaller domestic oil and gas producers, who had demonstrated ability to respond to short term increases in demand, felt they had lost an important option when SFAS 19 (FASB, 1977) mandated only successful efforts accounting could be employed as GAAP. The RRA method was found to be insufficiently developed, and while supplemental disclosures relating to reserve information would be forthcoming in SFAS 69 (FASB, 1982), the application of successful efforts and full cost methods both were reaffirmed as GAAP by SEC action in this episode.

The oil and gas issue would be heard one more time before Sampson left the SEC. At a public hearing on 30 October 1986, the Commission voted 4-1 not to abolish the full cost method of accounting for oil and gas companies. By doing so, the SEC concluded there was continued justification to allow oil and gas companies to use either the successful efforts method or the full cost method. 'During its deliberations, the SEC voiced concern that the harm to struggling oil and gas producers of going forward with the proposal would outweigh any benefits to investors... Interior Department Secretary Donald Hodel lauded the SEC decision, saying that it "prevents the creation of another obstacle to domestic production of oil"' (*JofA*, 1987, p. 50).

Sampson also formally established an Academic Accounting Fellows Program in 1979, patterned after the Professional Fellows Program started in 1972 by his predecessor Sandy Burton. This selective program affords senior accountancy faculty an opportunity to serve for a one-year term as a member of the OCA staff. Further, he advocated disclosure requirements for reporting auditor changes (ASR 247) (USSEC, 1978b) and is credited with initiating FRR 31 (USSEC, 1988a) which identified reportable items related to changes in accountants and potential

opinion shopping situations. He also laid the groundwork for a formal peer review process requirement, which was subsequently adopted by the SEC (*JofA*, 1988b).

Regulation S-X, first adopted in 1940, was modified and updated during Sampson's term when a number of significant changes to the SEC's disclosure system were initiated. For example, ASR 206 (USSEC, 1977) was issued on 13 January 1977, seeking a further simplification of reporting.[9] A number of other reporting improvements were achieved by the issuance of ASR 279 (USSEC, 1980a), ASR 280 (USSEC, 1980b) and ASR 281 (USSEC, 1980c)—all issued on 2 September 1980.[10] These releases facilitated the Integration Project, whereby financial information in 10Ks and annual reports would henceforth contain an identical 'basic information package' which would produce conformed financial report contents for 10Ks and annual reports as part of a single disclosure system advocated by both the Cohen Commission and the Wheat Commission. These April 1982 releases also specified the basis for the two new SEC series—Financial Reporting Releases and the Accounting and Auditing Enforcement Releases.

Upon retirement from the SEC in December 1987, Sampson was selected to serve as a member of the FASB and Edmund Coulson, deputy chief accountant, was appointed to succeed him (*JofA*, 1988a). In 1993, the Public Oversight Board presented its John J. McCloy Award to Sampson in recognition of his distinguished career (*JofA*, 1993). Sampson retired from the FASB on 30 June 1993.

Edmund Coulson (January 1988–January 1991)

SEC Chairman David S. Ruder announced the selection of Edmund Coulson as chief accountant, stating: 'We have selected the individual who combines the highest level of technical expertise in SEC accounting and auditing issues and with long experience at the commission. He has been in the forefront of developing an aggressive commission posture concerning the responsibility of the accounting profession to ensure the integrity and credibility of the financial disclosure system' (*Los Angeles Times*, 1988, p. 3).

Coulson, a 1970 University of Maryland graduate, had acquired several years experience as a CPA in public practice with the firm A. M. Pullen & Co. (now McGladrey & Pullen, LLP) before joining the SEC in 1975, starting in the Division of Corporation Finance (McGoldrick, 1991). Coulson held the position of deputy chief accountant for five years prior to assuming the position of chief accountant. As to his new role, Coulson stated that the SEC 'is first and foremost a law

[9] ASR 206 (USSEC, 1977) revised and decreased the number of items of information required to be included in Form 8-K by approximately 62 per cent by transferring the reporting of certain items to the Form 10-Q. Before recent amendments, Form 8-K was used to report the following events: (a) changes in control of registrant; (b) acquisition or disposition of assets; (c) bankruptcy or receivership; (d) changes in registrant's certifying accountant; (e) other materially important events; (f) resignations of registrant's directors; (g) financial statements and exhibits; (h) change in fiscal year; and (i) Regulation S offerings.

[10] Prior to 1980, a number of SEC disclosure requirements were duplicated under the 1933 Act and the 1934 Act.

enforcement agency' and that he intended 'to play an active and visible role in enforcement' (Collins, 1989, p. 79).

Sponsored by the AICPA, the National Commission on Fraudulent Financial Reporting (NCFFR, or more commonly the Treadway Commission, named after its chair, former SEC Commissioner James Treadway) was formed in 1985 to address financial reporting fraud. The Treadway report was issued in 1987, just before Coulson assumed office. It highlighted the need for independent audit committees and identified a number of corporate governance practices that could reduce the possibility of fraudulent financial reporting. The Treadway Commission's recommendations were followed up in meetings of the Committee of Sponsoring Organizations (COSO). Coulson began his responsibilities in office with a view that auditors should 'take the Treadway Commission report seriously' (Collins, 1989, p. 84).

Coulson worked closely with the private sector to address issues related to fraudulent financial reporting. Coulson emphasized the need to address management fraud to preserve the integrity of capital markets. Enforcement activity was enhanced during Coulson's term as chief accountant when the agency increased its accounting staff to uncover disclosure violations by companies and individuals. For instance, he worked with the AICPA's Auditing Standards Board on its

expectations gap[11] project and with the Treadway Commission and COSO to promote implementation of the report's recommendations (Collins, 1989). To that end, Coulson supported several steps to tighten auditor's communication rules in the aftermath of the fraud related to the ZZZZ Best case. For example, FRR 31 (USSEC, 1988a) required companies who change auditors (often a sign of trouble at a company) to notify the SEC within fifteen days of that event, instead of the previously required forty-five days. This change and related reporting provided for more timely disclosure in potentially troubled and uncertain situations in which a company might be opinion shopping—searching for a more liberal auditor.

He also pursued auditor independence issues including a concept release on the subject and an enforcement action against a major auditing firm with regard to loan arrangements between a financial institution client and partners of the firm. When the latter action was resolved, it would result in modifications of the AICPA's code of conduct so as to clarify and restrict loan arrangements between auditors and their financial institution clients.

The major independence determination which came to closure during Coulson's term, however, related to the scope of services issue. In February 1989, the SEC denied a petition of Arthur Andersen & Co., Peat Marwick Main & Co. and Price Waterhouse for relaxation of rules with regard to the types of business arrangements (subcontracting) the firms could enter into with their consulting groups and still remain independent (i.e., not have a mutuality of interest) when audit clients were served by both consulting and audit groups of a firm (USSEC, 1989).

Coulson called for substantial separations of the firms and their consulting operations, so that substantive separations of partnership arrangements, leases, employees, management and capitalization occurred. A year later the Andersen firm again petitioned and provided support to demonstrate such substantive activity, and to establish that there was *de minimis* economic impact in their relationships with Andersen Consulting (AC).

In a letter to the firm's representative, Robert M. Mednick (USSEC, 1990), Coulson stated, given the representations, that the OCA would not object to Andersen's conclusion that a business relationship between AC and the audit client of AA, structured as described, could be considered an indirect one for purposes of applying the SEC's audit rules. In this circumstance, the SEC would not seek to take action against the firm for independence violations. While Andersen's structuring approach was successful in achieving a 'no action' letter, other firms continued to wrestle with the matter of 'substantive' modifications. As various proposals from other firms to address this scope of service issue continued to appear during the 1990s they would lead to further tensions. In 1995, for example, KPMG Peat Marwick's proposed scope of service arrangements with Baymark, described below, would instigate a lengthy dispute between the Commission and the firm.

[11] A disparity between users' and CPAs' perceptions about the parameters of an audit function to include responsibility for detecting material fraud. The group's recommendations eventually led to increased audit program procedures intended to identify fraudulent circumstances.

Coulson expressed concern that the SEC's accounting and reporting requirements were too complicated and costly. He stressed that depending on the historical cost model for financial institutions should be a matter of concern (*Financial Executive*, 1991).

Coulson ended his service at the SEC in January 1991, accepting a partnership in Ernst & Young (*JofA*, 1992). Subsequently, he served as a member of the AICPA's Special Committee on Financial Reporting (the Jenkins Committee) (Larson, 1994). Today he continues to direct that firm's independence compliance activities.

Walter P. Schuetze (January 1992–March 1995)

SEC Chairman Richard Breeden appointed Walter Schuetze to succeed Coulson (*JofA*, 1992). Breeden described Schuetze as 'a precise man. He chooses his words carefully and speaks in measured phrases. He does not, however, mince words' (Barrett, 1992, p. 102). A graduate of the University of Texas at Austin, Schuetze began his public accounting career at Eaton & Huddle, which subsequently merged with Peat Marwick Mitchell & Co. (now KPMG LLP) in San Antonio. As a KPMG partner, in 1963, he was assigned to the New York executive office. From 1973 to 1976, Schuetze served as a charter member of the FASB. He returned to the firm in 1976 and remained in public practice until his appointment at the SEC. While at

WALTER P. SCHUETZE

KPMG, Schuetze was active in the profession, including a term as chairman of the AICPA's Accounting Standards Executive Committee (Barrett, 1992).

A proponent of expanding the application of market value accounting in the wake of the savings and loan crisis, Schuetze stated, 'While we have used historical-value accounting for a long time, I think in many ways market value is more relevant' (*JofA*, 1992, p. 18). In delivering the 2001 R. J. Chambers Research Lecture at the Great Hall at the University of Sydney, Schuetze (2001) recalled:

> When I interviewed with Chairman [Richard] Breeden for the position of Chief Accountant in December 1991, it turned out that his and my thoughts on market value accounting were in sync. At least as far as bond portfolios were concerned. Chairman Breeden did not want to go further than the bond portfolio. I wanted to mark all assets to market, but in the early 1990s, I was glad to start with the bond portfolios of thrifts and banks. (p. 2)

Schuetze believed that the use of market values for assets and liabilities was desirable, especially for financial institutions.[12] He did not think 'the users of financial statements have been well served over the last 10 to 15 years' and that 'as a result... financial accounting and reporting have lost some of their credibility' (Barrett, 1992, p. 102). He advocated further, that 'financial statements that use historical cost to value stocks and bonds (as investments) simply had outlived ... usefulness.' He noted that: 'Users ... would benefit from current value accounting for debt and equity securities' and that 'We also need to measure loan impairments by using discount rates tied to current market interest rates' (Barrett, 1992, p. 102).

Relatedly the FASB responded to these concerns when the FASB (1993) issued SFAS 115 (*Accounting for Certain Investments in Debt and Equity Securities*) in May 1993 and SFAS 118 (*Accounting by Creditors for Impairments of a Loan—Income Recognition and Disclosures*) (FASB, 1994a) in October 1994, which was supplemented in April 1995 by the issuance of SAB 94 (*Recognition of a Gain or Loss on Early Extinguishment of Debt*) (USSEC, 1995) following substantial losses and financial structure concerns in financial institutions.

As chief accountant, Schuetze spoke out about Big Six firms posturing as to client pressures and standards setting. In particular, he 'chastised the Institute and Big Six accounting firms for pressuring FASB to abandon its controversial plan for requiring recognition of stock option compensation to employees' (*Accounting Today*, 1994, p. 5).

Schuetze (1993) argued 'the concept of an independent audit of the financial statements of enterprises that seek to raise money from the public is one of the cornerstones of the Securities Act of 1933 ... The auditing function thus is of great importance to investors, the commission, and the general process by which corporations raise capital and conduct business affairs' (p. 40). Speaking at an AICPA conference in January 1994, Schuetze expressed concern regarding the independence of auditors, indicating 'it was very troubling that CPAs may have become cheerleaders for their clients on a number of accounting issues' (*JofA*, 1995).

[12] Schuetze's views on mark-to-market accounting are more fully explicated in his 2003 book on the subject.

Schuetze was also vocal in warning the profession against the appearance of conflicts of interest which could result from the trend of corporate outsourcing of a variety of services, including internal auditing. Schuetze noted that 'the SEC would "question the independence" of external auditors who perform management or internal control functions for their audit clients' (*Accounting Today*, 1994, p. 5).

Schuetze's comments prompted the appointment of a special advisory group by the Public Oversight Board (POB) of the AICPA (*JofA*, 1995). The POB's Advisory Panel on Auditor Independence (the Kirk Panel) was formed in February 1994. Donald Kirk, a charter member and former chairman of the FASB, chaired the three-member panel. 'The panel was not an investigatory body: its work consisted of interviewing professionals and others who could contribute to a better understanding of the problem. However, it did review the specific cases that led to Schuetze's criticism' (Carmichael and Craig, 1995, p. 19). According to Kirk:

> When approached to serve as chair of the panel, I was somewhat reluctant to undertake an investigative project of the facts surrounding the four cases that were the basis of Walter Schuetze's criticisms. When we met, it became clear that George Anderson and Ralph Saul were of the same mind. We didn't think those issues were a matter we should reinvestigate. We had a clear understanding with the POB that we were concerned with institutional relationships among standard setters, the profession, the SEC, and the business community to see if there weren't ways to improve those relationships and enhance the objectivity of the auditing profession. We did not want to focus on transitory specific issues of the kind raised by the four cases underlying Schuetze's remarks. We would use the points raised as a jumping-off point, but they would not be the central focus. We wanted to focus on longer-range, longer-lasting issues. (Carmichael and Craig, 1995, pp. 18–19)

The Advisory Panel also had available the OCA's *Staff Report on Audit Independence* (USSEC, 1994). According to Kirk, the staff focused 'on the rules of independence and what constitutes a conflict of interest between an auditor and his or her client' (Carmichael and Craig, 1995, p. 19). This report stated:

> The OCA believes that the combination of the extensive systems of independence requirements issued by the Commission and the AICPA, coupled with the Commission's active enforcement program, provide to investors reasonable safeguards against loss due to the conduct of audits by accountants that lack independence from their audit clients. The enactment of detailed legislation or the promulgation of additional rules is not necessary. The OCA believes that further legislation or fundamental changes in the Commission's regulation are not necessary at this time for the protection of investors. (Carmichael and Craig, 1995, p. 18)

On 13 September 1994, the Advisory Panel on Auditor Independence (1994) issued its report, *Strengthening the Professionalism of the Independent Auditor*. It identified the need for a stronger relationship between audit committees and the independent auditor so as to improve the overall financial reporting process.

The Advisory Panel's report concluded: 'independent judgments can be inhibited when the relationship between the auditor and management is too close. Shareholders and boards should expect auditors to challenge management's views on accounting principles, disclosure practices and accounting estimates and to inform the board about how shareholders' interests are affected by management's

accounting choices' (*JofA*, 1994, p. 13). Citing litigation's damaging and costly impact on the profession, the report called on the SEC to take the lead in reducing the profession's exposure to unwarranted litigation. The report says a better legal environment would 'encourage the profession to analyse and learn from audit failures' (*JofA*, 1994, p. 13). However, it also cautioned that although tort reform is necessary, it alone would not be sufficient to enhance the 'integrity, objectivity and professionalism of the independent auditing function' (*JofA*, 1994, p. 13). The Advisory Panel therefore recommended 'the SEC and the POB should consider devoting resources to stay informed on a continuing basis about developments in the auditing profession and in the market for audit services. . . . By having the facts, the SEC and the POB will be in a position to anticipate and take appropriate steps to strengthen auditor professionalism' (Carmichael and Craig, 1995, p. 20).

Among topics of technical accounting, Schuetze encouraged the FASB to address the accounting treatment for internal use software costs. Also, he asked the FASB's Emerging Issues Task Force (EITF) to provide guidance on provision for restructuring charges, because the SEC staff had noted increasing diversity in this area. This controversial topic remains, even today, as part of what has been called the 'cookie jar' reserve issue. Many years later, Schuetze (1999) made the following observation about such 'evergreen' issues:

> Accounting for so-called restructurings has become an art form . . . The cover for these shenanigans is two 'consensuses' of the FASB's Emerging Issues Task Force that deal with recognition of liabilities on the occasion of a restructuring or a merger, namely EITF 94-3 and 95-3 . . .
>
> I was Chief Accountant in 1994 when the Emerging Issues Task Force debated EITF 94-3. I pleaded with the EITF not to allow the recognition of liabilities today where there has been no past event, for example, the performance of services by employees or the receipt of goods from suppliers or the receipt of cash in return for issuing a put option, that establishes that the reporting enterprise has an obligation to lay out cash tomorrow. I made a speech about that on November 8, 1994 to the Financial Executives Institute. As I recall, I sent a copy of that speech to EITF members. In that speech, I pointed out the conceptual flaw in the EITF's approach and the practical consequences of that approach. Nine days later, on November 17, 1994, despite my pleas, the Emerging Issues Task Force said OK to the establishment of restructuring reserves.
>
> What has happened since 1994? Well, my instinct in 1994 has been confirmed by practice. What has happened since 1994 is that general reserves, contingency reserves, rainy day reserves, and cookie jar reserves, now are in vogue for those who want to use them. Based on what I see in the Enforcement Division, there apparently is almost no limit to what ingredient may be included in the reserves or the amount ascribed to it. (pp. 1–4)

Derivatives accounting was another area addressed by Schuetze. 'During 1994, some registrants experienced significant, and sometimes unexpected, losses in market-risk sensitive instruments, due to, among other things, changes in interest rates and foreign currency exchange rates' (Hunt, 1996, p. 5). During this period, in October 1994, the FASB issued SFAS 119 (*Disclosure About Derivative Financial Instruments and Fair Value of Financial Instruments*) (FASB, 1994b). 'The SEC staff observed that while disclosures reviewed in 1995 were more informative than those reviewed in 1994, in part because of improved guidance provided by the FASB in SFAS No. 119, several significant disclosure issues remained' (Hunt,

1996, p. 6). In 1995 the Commission addressed these concerns by issuing temporary footnote disclosure requirements, and in 1997 FRR 48 (USSEC, 1997a), concerning derivatives, was issued.

Schuetze retired from the OCA in March 1995, but on 2 October 1997 he returned to the SEC as chief accountant of the Division of Enforcement (MacDonald, 1997). Schuetze quipped that he was returning to the agency because, 'I just didn't enjoy retirement as much as I thought I would' (Rankin, 1997, p. 14). SEC Chairman Levitt stated, 'We are truly fortunate that Mr Schuetze is returning to the Commission' (Rankin, 1997, p. 14). 'Mr Schuetze has tremendous depth and experience in all of the accounting issues that confront the SEC's enforcement program. It is a great pleasure to welcome him back' (*JofA*, 1997, pp. 9–10). In 'Enforcement,' Schuetze was responsible for policing accounting irregularities at publicly traded companies and investigating conflicts of interest within the auditing profession. Schuetze concluded his service in the Division of Enforcement in February 2000 (USSEC, 2000d). Today he continues to be active in areas related to SEC reporting and audits. In April 2002 he became a member of the board of Computer Associates International, a major NYSE company, at a critical time in that company's dealings related to financial disclosures.

Michael H. Sutton (June 1995–January 1998)

Michael Sutton was selected as chief accountant in June 1995. As a Deloitte & Touche partner, his responsibilities in that firm during his thirty-two year tenure had culminated in being national director of accounting and auditing professional practice. Sutton accepted a position with the firm after he received his graduate (1963) and undergraduate (1962) degrees in accounting from the University of Tennessee (USSEC, 1997e).

After a series of increasingly responsible assignments, he became involved in profession-wide practice issues. Sutton was a member of the Emerging Issues Task Force of the FASB from 1980 to 1986. He served as the vice-chair of the AICPA's Special Committee on Financial Reporting (the Jenkins Committee) from 1991 to 1994. He was a member of the FASB's Financial Accounting Standards Advisory Council, working on such topics as mark-to-market and intangible asset accounting, disaggregated financial statements and income and cash flow statements, accounting for comprehensive income and segment reporting, and the international harmonization of accounting standards.

In its 1994 report, the Jenkins Committee recommended the implementation of an expanded model of corporate communication—the 'business reporting' model. This model specifies a variety of non-financial as well as financial information that a company should provide to help users with capital allocation and investment decisions about an enterprise. As vice-chair of the Jenkins Committee, Sutton was influential in directing 'its research toward learning about "user's needs" in financial reporting' (Previts and Merino, 1998, p. 374). This 'user need perspective' was reflected further during his term as chief accountant with specific reference to individual investors as users. In 1996, he noted 'any changes in our disclosure system ... would need to be tested against our simple mission—that is, how the

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changes benefit the interests of investors' (Fleming, 1996, p. 15). Referring to the Jenkins Committee, Sutton said that he was 'struck by the high degree of consensus about the importance of nonfinancial and forward-looking information to investors and creditors as well as by the lack of consensus about what should be done and by whom' (Fleming, 1996, p. 14).

Even before his term at the SEC, Sutton was an advocate of mark-to-market accounting for securities. While Sutton proposed that marketable assets be shown at market value, he believed that the unrealised changes in the value of such assets should not be included in current income, but should be shown in a new financial statement entitled Statement of Changes in Provisional Values (Sutton and Johnson, 1993). Speaking before the District of Columbia Bar Association in 1995, Sutton supported the mark-to-market model stating that mark-to-market accounting for derivatives 'would bring the fair value of those instruments out of the footnotes and into the balance sheet' (*American Banker*, 1995, p. 4). However, groups such as the American Bankers Association did not favour this approach, 'saying derivatives are too diverse and complex for a simple mark-to-market accounting approach' (*American Banker*, 1995, p. 4).

As noted, auditor independence is a core issue to the SEC and the OCA, and it was no different for Sutton. The Jenkins Committee had identified concerns

about pressures on auditor independence, and in September 1996 the United States General Accounting Office reported that 'Despite actions taken by the SEC and the AICPA in the 1970s and the 1980s to strengthen auditor independence, questions of auditor independence stemming primarily from auditor/client relationships in providing audit and other services have continued into the 1990s' (Sutton, 1997a, pp. 87–8). Speaking to members of the American Accounting Association in 1996, Sutton (1997a) stated that the 'list of services that public accounting firms seek to provide has taken on new dimensions' (p. 88). During the 1990s, there were economic arguments developed to support outsourcing of corporate services to be supplied by public accounting firms. Sutton (1997a) was concerned about this trend and stated, 'the investing public and the public accounting profession would be better served if services that are designed to replace traditional management functions were provided only to nonaudit clients' (pp. 89–90). Sutton believed that an independent auditor should not perform internal auditing functions. 'While the issues are complex, and the solutions are not easy, it is clear that auditor independence is an issue that has serious implications for the image and stature of the public accounting profession—one that the leadership of the profession, including its self-regulatory processes, needs to address' (p. 91). Accordingly, Sutton (1997a) stated:

> If the public accounting profession is to continue its special relationship as the exclusive provider of auditing services to SEC registrants, the Commission and the investing public have a right to expect the profession to find ways to assure the public that the heavy responsibilities that go with the role of independent auditor continue to be met. I urge the profession to consider thoughtfully the enormous benefit that society has given it, and the privilege through self-regulation of preserving and enhancing that valuable franchise, and to weigh carefully the costs of losing public confidence. (p. 91)

In a 1997 interview, Sutton further observed:

> There are two trends in recent years that the SEC has observed—trends that some fear could negatively impact auditor performance and auditor independence, the very linchpins to our financial reporting system.
>
> The increasing complexity of the business and professional environment in which companies and their auditors conduct their affairs, including changes in the size and structure of the largest accounting firms.
>
> The growing diversity of services that auditors of public companies are marketing to audit clients and the growing economic importance of nonattest services to the firms. (Craig, 1997, p. 16)

Sutton supported an enforcement action against KPMG Peat Marwick LLP (AAER 994) (USSEC, 1997d) regarding services being offered through a collateral entity related to the KPMG firm.[13] The SEC claimed that KPMG, through an

[13] On 21 January 2000, Robert G. Mahony, Administrative Law Judge (ALJ) ruled that KPMG committed an independence violation by auditing Porta, thereby violating Rule 2-02 of Regulation S-X and the Securities Exchange Act §13(a). Although Judge Mahony determined that KPMG had technically violated independence rules, he also ruled that the evidence as presented failed to establish that KPMG had recklessly engaged in improper professional conduct; therefore, no sanctions were ordered against KPMG (USSEC, 2000a).

arrangement with KPMG Baymark, had failed to comply with established standards of auditor independence in connection with its audit of the 1995 year-end financial statements of Porta Systems Corporation (Porta) and the preparation of the related audit report. An element which reflected the SEC's view was the belief that a firm controlled entity should not provide services to an audit client when the service was not appropriate for the firm per se to offer. The Baymark episode has proven to be a lengthy dispute (USSEC, 2000b). It would take until 2001 for the Commission to prevail in its own internal review (AAER 1374) (USSEC, 2001a), only to be further contested by the firm in the courts. In May 2002, a U.S. Appeals Court upheld the Commission's ruling (Mathewson, 2002).

In May 1997, the AICPA and the SEC jointly announced the establishment of an Independence Standards Board (ISB) as an effort to strengthen the private sector's ability to develop and approve audit independence standards. The ISB, consisting of eight members, four of whom represented the public and four drawn from the profession, had as its primary responsibility the establishment of independence standards for auditors of public companies (Craig, 1997).[14] Among the ISB's objectives was the attempt to increase public participation in the establishment of independence standards and to enhance the public's perception of the independence of auditors of publicly owned companies. The ISB standard-setting process was open to the public and proposed standards were exposed for public comment (AICPA, 1997).

Sutton stated: 'this is a tremendously important development for the public, for the profession and for self-regulation. It offers an opportunity to take a fresh look at—and find solutions for—knotty issues that have become more and more challenging over the years' (Sutton, 1997b, p. 3).

Shortly after his departure from the chief accountant's position, the SEC issued FRR 50 (USSEC, 1998a)[15] recognizing the ISB as the authoritative standard-setting body for auditor independence, but subjecting it to an initial review after a developmental period (AICPA, 1998a). This new entity faced the challenges of promptly addressing auditor independence issues in the current business environment or facing the prospect of direct SEC intervention and direct rule making in the future.

Sutton addressed other issues including business combinations. The SEC issued FRR 47 (USSEC, 1996) in October 1996, which called for streamlining disclosure requirements for significant business acquisitions. With this release, the SEC further harmonized financial statement disclosure requirements under 1933 and 1934 Act registration requirements.

Based on Sutton's recommendation, the SEC enacted FRR 49 on 12 March 1997 (USSEC, 1997b). This release met the provisions imposed by the Private Securities

[14] A nine-member Independence Issues Committee, consisting of CPAs from firms that audit public companies assisted the Independence Standards Board.

[15] FRR 50 was effective 26 March 1998.

Litigation Reform Act of 1995[16] which was watershed legislation designed to reduce exposure to litigation risks from frivolous class action suits, and to amend pleading standards used to bring such actions. The law represented a climax to a decade long campaign to revise tort law, and had sufficient congressional support to become the only legislation which was able to override a veto by President Clinton during his two terms in office (King and Schwartz, 1997).

FRR 49 addressed Section 10A of the 1934 Act which 'requires that each audit under the Exchange Act include procedures regarding the detection of illegal acts, the identification of related party transactions, and the evaluation of the issuer's ability to continue as a going concern' (USSEC, 1997b, pp. 1–2). Section 10A also codifies certain then-existing professional auditing standards regarding the detection of illegal acts by issuers and imposed expanded obligations on auditors to report in a timely manner to management any information indicating that an illegal act has, or may have, occurred. The auditor must ensure that the audit committee or board of directors is adequately informed with respect to an illegal act, as broadly defined by Section 10A, unless the illegal act is clearly inconsequential. The auditor is to report a client's uncorrected illegal acts to the client's board of directors, and to the SEC, if the company's board did not do so.

In his speeches and writings, Sutton urged the International Accounting Standards Committee (IASC) to pursue more robust accounting standards for cross-border listings. In April 1996, the SEC released a statement of support for the efforts of the IASC which identified the following three key elements that the Commission felt are necessary for the IASC's standards to gain SEC acceptance:

1. *A core set of standards* that constitute a comprehensive generally accepted basis of accounting,
2. Standards of high quality that result in *comparability and transparency* and provide for full disclosure, and
3. *Rigorous interpretation and application* of the accounting standards. (Sutton, 1997c)

Sutton also championed the need to account for and disclose fair value information about derivative instruments (Wilson and Rasch, 1998).[17] This was a response to the derivative investments financial scandal that occurred in 1993 and 1994 (Levitt, 1996) in Orange County, California, which generated considerable Congressional interest in the disclosure and accounting for derivatives. In January 1997, the SEC expanded disclosure requirements by issuing FFR 48 requiring companies to disclose more about the accounting policies for derivatives in the footnotes of the financial statements. The new rules 'expand existing disclosure

[16] Applicable to publicly traded companies, the Reform Act (22 December 1995): (a) made significant changes toward preventing abuse in securities litigation under federal law; (b) introduced the concept of proportionate liability under the federal securities laws; (c) implemented safe harbours for the disclosure of forward-looking statements; and (d) imposed new responsibilities on auditors to detect and report illegal acts (15 U.S.C. §78, Section 10(b) of the Exchange Act of 1934 and SEC Rule 10b-5).

[17] FRR 48-1 and 48-2 on Derivatives.

requirements to include quantitative and qualitative information about market risk inherent in market risk sensitive instruments' (USSEC, 1997a, p. 2).

In December 1997, a press release announced Sutton would depart the SEC in the first month of the new year. Chairman Levitt stated that the fruits of Sutton's labour, especially on international accounting standards, derivatives and auditor independence will be long lasting (USSEC, 1997e). Levitt further stated, 'sound markets are the result of fair and rigorous accounting standards, which Mike has espoused and fought for throughout his career' (USSEC, 1997e, p. 1).[18]

Lynn E. Turner (July 1998–August 2001)

Lynn Turner was chosen to succeed Sutton as chief accountant, effective 1 July 1998 (USSEC, 1998b). Prior to assuming his position as chief accountant, Turner

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[18] According to the SEC's Division of Public Relations, an acting chief accountant was not appointed to replace Sutton when he ended his term as chief accountant in mid-January 1998 (Roybark, interview with subject, 19 November 1999). However, Jane B. Adams, who was appointed deputy chief accountant by Sutton, spoke on behalf of the Office of the Chief Accountant from the time Sutton left the Commission until Lynn Turner effectively assumed the position of chief accountant in July 1998.

was vice-president and CFO of Symbios, Inc. of Fort Collins, Colorado (MacDonald and Beckett, 1998) and prior to that a partner in Coopers & Lybrand (now PricewaterhouseCoopers LLP), where he spent his career, with the exception of two years (1989–91) when he served as a Professional Accounting Fellow at the SEC (*JofA*, 1990).

Turner received a master's degree in accounting from the University of Nebraska and a bachelor's degree in business administration from Colorado State University (Reynolds, 1998). He co-authored a monograph case study entitled *Software Industry Accounting* and was a contributor to *Montgomery's Auditing*.

Turner's list of priorities as chief accountant were outlined at a joint meeting of the AICPA and SEC representatives, and included: international accounting standards and auditor independence (AICPA, 1998b). As to independence, Turner stated his hope that the ISB would enable 'engagement partners to make appropriate decisions about difficult accounting issues without the fear that their income or career will be jeopardized' (AICPA, 1998b, p. 4). Turner published an article in *Accounting Horizons* early in his term in order to identify his agenda and the particulars of the accounting issues therein. The topics identified ranged from factors influencing the audit decision making process, to evergreen issues of auditor independence, and differences between U.S. and international standards. Also listed among the thirty-eight specified topics were market risk disclosure requirements and a request to identify what financial data analysts use that are currently not provided in filings with the SEC. The item contained a clear message to the academic community. 'We therefore challenge accounting researchers to provide original research, citations, or other comments that can aid the Commission in carrying out its responsibilities and meeting many of the challenges that we describe in this paper' (Turner and Godwin, 1999, p. 294).

In 1998, the Commission decided, in part due to the administrative law issues involved in the Checkosky/Savin/Coopers & Lybrand case, that changes to the rules concerning due process relating to disciplinary actions about independence might be in order (Schuetze, 1998). In July, the Commission issued an exposure draft of its recommended revision of Rule 102(e) of its Rules of Practice under the Securities Exchange Act of 1934.[19] The rule is the basis upon which the Commission regulates professionals who practise before it.

After a lengthy debate surrounding the proposed revision, the SEC issued a final version of Rule 102(e) under the Rules of Practice, effective 25 November 1998 (USSEC, 1998c).[20] In a speech in April 1999, Turner related the Rule 102(e) revision to determinations about independence:

[19] Items 25 and 26 of Schedule A to the 1933 Act and Section 17(e) of the 1934 Exchange Act, 15 U.S.C. §78q, expressly require that financial statements be audited by independent public or certified accountants. These federal securities laws also grant the Commission the authority to define the term *independent*. Section 19(a) of the 1933 Act, 15 U.S.C. §77s(a), Section 3(b) of the Exchange Act, 15 U.S.C. §78c(b), Section 20(a) of PUHCA, 15 U.S.C. §79t(a), and Section 38(a) of the ICA, 15 U.S.C. §80a-37(a) grant the Commission the authority to define accounting, technical, and trade terms used in each Act.

[20] 63 *Federal Register* at 57164 (26 October 1998).

> Because of the importance of an accountant's independence to the integrity of the financial reporting system, the Commission has concluded that circumstances that raise questions about an accountant's independence *always* merit heightened scrutiny. Therefore, if an accountant acts highly unreasonably with respect to an independence issue, that accountant has engaged in 'improper professional conduct'. (USSEC, 1998c, p. 8, as quoted by Turner, 1999b, p. 3)[21]

In 1999, COSO, the group charged with following up the Treadway recommendations, published a tenth anniversary study on audited financial statements and auditor independence (*Fraudulent Financial Reporting: 1987–1997*). The study provided a comprehensive analysis of fraudulent financial reporting occurrences investigated by the SEC since the issuance of the Treadway report.[22] The study reported that senior executives were frequently involved in frauds relating to financial reporting.[23] In addition, the report concluded that boards of directors were dominated by management insiders as well as by directors with significant equity ownership but little apparent boardroom experience with other companies. The research findings identified two implications regarding the role of external auditors. First, the auditor must look beyond the financial statements to understand the risks unique to the client's industry; the management's motivation towards aggressive reporting; and the client's internal control (particularly, 'the tone at the top'). Second, the external auditor should recognize the potential for greater audit risk when the audited companies have higher risk board and audit committee governance arrangements (COSO, 1999).

[21] The Commission's proposal to amend Rule 102(2) was prompted by a judicial decision by the U.S. Court of Appeals for the District of Columbia Circuit concerning the conduct of two accountants. The court ruled that the Commission's opinions in that case had not articulated clearly the 'improper professional conduct' element of the rule. To address the court's concerns, the Commission published for comment a proposed amendment to Rule 102(e) on 18 June 1998, and because of the significance of the issue of auditor independence, the SEC subsequently extended the comment period until 20 August 1998. The final rule amendment includes three types of conduct that result in violations of applicable professional standards: (a) knowing or intentional conduct, including reckless conduct; (b) repeated instances of unreasonable conduct; and (c) highly unreasonable conduct that results in a violation of applicable professional standards in circumstances in which an accountant knows, or should know, that heightened scrutiny is warranted. This provision covers a single instance of serious misconduct that may not rise to the level of intentional or knowing (including reckless) conduct (applies to professional standards—greater than ordinary negligence but less than recklessness—when an accountant knows or should know of a heightened risk [called the heightened scrutiny rule]). This revision was a direct result of the Checkosky II court's concern that the Commission had not clearly articulated its standard for determining when accountants engage in professional misconduct. This rule was not intended to cover all forms of professional misconduct and the Commission has separate statutory authority that is available to address and deter professional misconduct that is not encompassed by Rule 102(e), as amended in 1998.

[22] The study analysed 200 randomly selected cases of alleged financial fraud investigated by the SEC, about two-thirds of the 300 SEC probes into fraud between January 1987 and December 1997. The study focused on AAERs that involved an alleged violation of Rule 10(b)-5 of the 1934 Securities Exchange Act or Section 17(a) of the 1933 Securities Act, given that these represent the primary anti-fraud provisions related to financial statement reporting. The focus of the study was on cases that clearly involved financial statement fraud (COSO, 1999).

[23] In 72 per cent of the cases the CEO appeared to be associated with the fraud. Eighty-three per cent of the frauds relating to the nature of the control environment involved the CEO or CFO (COSO, 1999).

As to financial reporting, Turner observed that 'earnings management' was a serious problem. He indicated that 'in the first quarter of 1998, corporate write-offs, as a percentage of the reported earnings per share of the S&P Fortune 500 stock index, surged to 11 percent of reported earnings, their highest level in the past 10 years' (Turner, 1999c, p. 2). In response to concerns about earnings management, the OCA sent a letter to a number of registrants who, in 1998, reported large charges for asset write downs, restructuring charges and write-offs of acquired research and development. The 'letter identified required and commonly requested MD&A and financial statement disclosures that may be applicable to the registrant' (Turner, 1999a, p. 5).

As to peer review, Turner (1999d) noted that:

> A number of recent SEC enforcement actions have cited problems with the independence of accounting firms and their quality control systems . . . The globalization of the business, financial and capital markets have grown at an increasing pace in the twenty plus years since the current peer review process was established. Given that a U.S. based business may conduct and have a majority of its business overseas, doesn't it make sense to reconsider the existing peer review rules that significantly limit the peer review procedures applied to the audit procedures actually performed by the firm's international affiliates? (p. 7)

Turner also was attentive to increased pressures to review independence requirements.[24] For example, a 1999 study 'found that many individuals interviewed believed that pressures on auditors have been increasing and are becoming problematic, and that auditors are developing a stronger interest in their relationship with management, perhaps at the expense of their responsibilities to shareholders' (USSEC, 2000f, p. 93).[25] Turner (1999b) expressed the view that every auditor should adhere to the sound advice offered by Peter Drucker—'Start with what is right rather than what is acceptable' (p. 8). Turner (1999e) noted that the SEC over the years has taken enforcement actions against firms and their professionals for breaching some of the most basic independence rules such as investing in the client that they audit. The SEC sanctions of PricewaterhouseCoopers LLP (AAER 1098) (USSEC, 1999a) provided examples of the concerns the Commission was identifying, to include:

[24] In 1999, Big Five accounting firms received higher fees for MAS and other consulting services than for audits from approximately 600 audit clients (SEC Proposed Rule S7-13-00 Revision of the Commission's Auditor Independence Requirements, July 2000).

[25] The Independence Standards Board sponsored a study by Earnscliffe Research & Communications (Earnscliffe Report to the United States Independence Standards Board: Research into Perceptions of Auditor Independence and Objectivity, November 1999). Earnscliffe conducted interviews to assess the perceptions of different audiences about auditor independence. Earnscliffe reported: 'The large majority of interviewees in each segment (including auditors) have sensed that in recent years accounting firms have lost their preoccupation with audits, and become much more preoccupied with growing new areas of consulting revenues. Many felt that within firms, the psychic and financial rewards were tilted heavily towards the consulting side, and that auditors who wanted to be well compensated and respected by peers, needed to support the growth of non-audit functions. This perception was even shared by a fair number of auditors' (Earnscliffe Report, Note 10, p. 14, as quoted by the SEC Proposed Rule: Revision of the Commission's Auditor Independence Requirements, 30 June 2000).

- In four instances, certain professionals owned securities of publicly-held audit clients for which they provided professional services;
- In thirty-one instances, individual partners and managers owned securities of publicly held audit clients (Turner, 1999b, p. 3).

The SEC's increasing activism on audit independence has its economic consequences. It was believed to have cost U.K. PricewaterhouseCoopers LLP (PwC) an audit worth £2 million ($3.3 million), when Prudential (the insurers) dropped PwC because the SEC did not view the arrangement between PwC and Prudential as complying with the rules of auditor independence (*International Accounting Bulletin*, 2000).

During the 1990s, the media reported a number of alleged financial frauds.[26] Some argued that these reports were tabloid sensationalism, but others asserted that there was a basis for concern. The accounting profession's response to these issues included, in October 1998, the POB's establishment of the Panel on Audit Effectiveness, chaired by Shaun F. O'Malley, former chair of Price Waterhouse, LLP (now PricewaterhouseCoopers) (POB, 2000a). The Panel's final report on 31 August 2000 (*Panel on Audit Effectiveness—Report and Recommendations*) (POB, 2000b), contained a number of findings directed to three professional groups: audit firms, the SECPS Peer Review Committee and the AICPA.

Related to audit quality, Turner observed: 'It is critical to the capital markets that investors continue to be able to rely on effective and high quality audits to ensure the credibility of the numbers they rely on' (USSEC, 1999d, p. 1). In a speech delivered to the Panel on Audit Effectiveness of the Public Oversight Board, Turner (1999d) reviewed recent events that caused the SEC to question the effectiveness of audits and the risk-based audit approach:

> It is clear, based on the evolution of the audit process over the last decade, that auditors have changed the nature of audit procedures they perform to rely more on analytical procedures rather than more traditional substantive audit procedures . . . These changes have resulted in the auditor obtaining a significant amount of audit assurance from inherent and internal control sources as well as management representations. You only have to look as far as the March 1999 report sponsored by the Committee of Sponsoring Organizations of the Treadway Committee [*sic*] (COSO) on fraudulent financial reporting to understand the problems with today's audits . . . The COSO report and recent enforcement cases raise questions about whether an audit model that allows the auditor to de-emphasize or eliminate specific types of audit procedures, for example use of external confirmations or observation of assets, is in the best interest of investors. (pp. 3–4)

Turner (1998a) also took action to address concerns about the subject of 'materiality'. In his 1998–1999 Audit Risk Alerts[27] letter to the AICPA, in the midst of the dot.com IPO market, he noted:

[26] The U.S. press published a number of negative articles, for example, 'Pick a Number, Any Number', 'Accounting Abracadabra' and 'Ten Ways Numbers Lie' (Turner, 1998b, p. 5 and Turner, 1999c, p. 2).

[27] Periodic correspondence outlining and alerting the accounting profession about the current audit risks detected by the Commission's OCA.

> Familiar measures of materiality, for example, 5% of pre-tax income, may not be adequate in a marketplace with P/E multiples of 40, where missing the market's expectation of earnings per share by a penny can have significant consequences. In such an environment, management, auditors, and boards of directors should be concerned when known violations of GAAP are present in the financial statements.
>
> The SEC staff believes that auditors must assess the qualitative factors important in determining whether information would be considered material to investors. The use of quantitative factors alone is not sufficient . . .
>
> When considering issues of materiality, auditors of public companies are expected to consider guidance that is already provided in several important areas including court decisions, Commission rules, regulations and enforcement actions, as well as accounting and auditing literature. (p. 3)

Reflecting these challenging new concerns in a setting of unparalleled stockmarket activity, the OCA issued SAB 99 (USSEC, 1999b) in August 1999 which exhorted accounting professionals to assess materiality from a broader perspective and avoid over reliance on quantitative guidelines for setting materiality thresholds. The bulletin addressed abusive earnings management by public companies and the exclusive reliance on any percentage or numerical threshold in assessing materiality for financial reporting.[28]

In a letter to the AICPA Director of Audit and Attest Standards in December of 1999 (Turner, 1999g), Turner re-emphasized the importance of the matters addressed in FRR 49 (USSEC, 1997b), particularly with respect to suspected illegal activities and auditors' responsibilities given the effects of the Private Securities Litigation Reform Act of 1995:

> Auditors have a unique role and franchise . . . If auditors do not meet the expectations of the investing public and the public loses its confidence in the role performed by the CPA as an objective and independent third party, there will be irreparable harm done to the value of that role. Accordingly, the SEC staff reiterates the need for auditors to maintain their integrity, objectivity, and independence, and when necessary to make the tough calls on the tough issues. In making these calls, auditors should keep foremost in mind that the investing public is their client . . .
>
> Congress clearly intended that Section 10A should result in the Commission receiving an early warning from auditors about their clients' illegal activities. Despite this intention, the Commission has received very few Section 10A reports. The General Accounting Office, at the request of Congressman John Dingell, currently is investigating why such a relatively small number of reports have been submitted to the Commission. The Commission encourages all auditors to review Section 10A and Rule 10A-1 and, when confronted with the proper circumstances, to provide the appropriate notice and reports. (Turner, 1999g, pp. 1–5)

On 22 December 1999, the SEC adopted new rules and amendments to its current rules concerning audit committee disclosures (USSEC, 1999e). Two of the reasons cited for the adoption of these new rules were the new and complex dynamics of the U.S. capital markets and the recognition of increasing pressure to

[28] Three SABs were issued in 1999, which specifically address abusive earnings management: SAB 99 (12 August 1999) deals with materiality; SAB 100 (24 November 1999) discusses restructuring liabilities and asset impairments issues; and SAB 101 (3 December 1999) provides guidelines for revenue recognition.

meet earnings expectations (USSEC, 1999e). Turner had expressed serious concern about inappropriate earnings management to the point of distorting the true financial performance of the company. Based on recent rules, an independent auditor must review the client's financial information prior to the filing of Quarterly Reports on Form 10-Q or Form 10-QSB with the Commission. These rules also require that companies include in their proxy statements certain disclosures about their audit committees and certain reports from their audit committees. The rules, effective 31 January 2000, stipulate that registrants must obtain reviews of interim financial information by their independent auditors for filing on or after 15 March 2000 (USSEC, 1999c).[29]

The growing number of significant independence tensions between the Commission and the principal elements of the organized audit profession affecting the scope of services[30] prompted the OCA to propose new rules for auditor independence during 2000. This action by the SEC signalled that the ISB's effectiveness was going to be called into question and that its future was in doubt. By late 2001 the weight of the issues being addressed by the ISB was such that both the SEC and the AICPA would agree to end ISB operations. Before this action would occur, however, several events and actions took place.

In 2000, the SEC approved proposed amendments to update the rules governing auditor independence. The proposal contained over one hundred pages, which elaborated on scope of service, conflicts of interest and the modern business environment's impact on auditors and independence (USSEC, 2000f). The amendments identified four governing principles to guide in assessment of an auditor's independent:

- Having mutual or conflicting interest with an audit client,
- Auditing one's own work,

[29] In January 1999, the ISB adopted Standard No. 1, which specifies new disclosure rules concerning audit committee. The SEC recognized the ISB to provide leadership in improving auditor independence in FRR 50 (18 February 1998). The new SEC rules adopted on 22 December 1999 were intended to be used to assist the ISB in its work.

[30] Significant changes in the accounting profession that influenced the proposed changes included: (a) firms became primarily business advisory service firms (Management Advisory Services [MAS] is a subset of nonaudit services); (b) firms and their audit clients are entered into an increasing number of business relationships such as strategic alliances, co-marketing arrangements and joint ventures; (c) firms are diverting significant portions of their consulting practices or restructuring their organizations; (d) firms are offering ownership of parts of their practices to the public, including audit clients; (e) firms are in need of increased capital to finance the growth of consulting practices, new technology, training and large unfunded pension obligations; (f) firms have merged, resulting in increased firm size, both domestically and internationally; (g) firms have expanded into international networks, affiliating and marketing under a common name; (h) non-CPA financial service firms have acquired accounting firms, and the acquirers previously have not been subject to the profession's independence, auditing, or quality control standards; (i) firms' professional staffs have become more mobile, and geographical location has become less important due to advances in telecommunications and internet services; and (j) audit clients are hiring an increasing number of firm partners, professional staff and their spouses for high level management positions (Proposed Rule: S7-13-00 Revision of the Commission's Auditor Independence Requirements 17 CFR Parts 210 and 240).

- Functioning as management or an employee of an audit client, and
- Acting as an advocate for an audit client.

The basic principles offered a framework for analysing issues relating to auditor independence, in that actions inconsistent with one or more of the principles could result in a lack of auditor independence.[31]

In related matters during June 2000, the Commission announced that all of the then Big Five accounting firms agreed to participate in a voluntary 'look-back program' to address past violations of auditor independence rules.[32] The program provided a safe harbour (a type of amnesty) from enforcement and certain other SEC actions for all but the most serious violations covered by the program. Turner stated that 'This program will identify issues that will be helpful in developing improved systems, procedures, and controls to provide assurance of compliance with all independence rules in the future' (USSEC, 2000e, p. 2).

As have all chief accountants since the inception of the Emerging Issues Task Force (EITF), Turner was an active observer of deliberations by the group. During 1999, the EITF reached consensus on a number of significant issues including those relating to the application of the equity method of accounting, accounting for financial instruments, and the appropriate reporting of subsequent events caused by the phenomenon of the year 2000. As with his predecessors, Turner supported the SEC's Professional Accounting Fellow Program in which he had been a participant. Turner left the Commission in August 2001 to join the faculty at Colorado State University and serve as the director of the Center for Quality Financial Reporting.

SUMMARY

The SEC was formed seven decades ago. Today, as in 1934, the objective of the Commission 'continues to be the protection of investors through the fair and orderly operation of the markets' (Turner, 1999f, p. 1).

Since the issuance of ASR 4 in 1938, the SEC has recognized, and regularly supported, the private sector's role in establishing and improving accounting principles relating to disclosure practices of public companies. As Commissioner Hunt (1996) noted, 'the typical standard-setting activity of the SEC is oversight, rather than the drafting of new accounting principles' (p. 4). Financial Reporting

[31] After holding public hearings (USSEC, 2000g), the SEC issued on 21 November 2000 its final rule relating to the revision of auditor independence (USSEC, 2000h). Lynn Turner participated in these public hearings. Past SEC auditor independence revisions were made in 1983 (FRR 10, 25 February 1983) and 1998 (Rule 102(2) Rules of Practice).

[32] The voluntary look-back program covered a period of at least nine months ending 31 March 2000. Each firm retained independent counsel to oversee a review to identify certain independence violations relating to ownership of prohibited financial interests in their SEC audit clients. The program did not cover violations that the SEC were informed of prior to the commencement of the program, nor does the safe harbour cover violations that took place during the review that the SEC is informed of after the completion of the program. Participating firms began the reviews on 15 June 2000 and the participating firms submitted their report of findings to the SEC in 2001.

Releases issued by the SEC are designed to supplement and/or amend FASB and other professional accounting standards. The SEC through the actions of its chief accountant has demonstrated that it will challenge, and on occasion supersede, private-sector accounting standards. The SEC's willingness to support the private sector has been with an understanding that it continues to monitor the results of private-sector standard setters and when necessary to exercise its statutory authority.[33] In April 2003 the Commission reaffirmed its support of the FASB under the criteria of Section 108 of the Sarbanes-Oxley Act of 2002, by issuance of FRR 70 (USSEC, 2003a). Under Sections 108–9 of the Sarbanes-Oxley Act of 2002, the SEC is also directed to approve a public fee funded budget to support the FASB's activities.

While many individuals, alone or by virtue of their offices, have contributed to the growth and development of the CPA profession during its existence, arguably no single group has influenced it more than those individuals holding the office of the Chief Accountant of the Securities and Exchange Commission. Augmenting the work of early SEC chief accountants (Previts, 1978), this article provides detail of how five recent chief accountants serving over the twenty-five-year period 1976–2001 have responded to this role in the capital markets. The article relates where and how OCA officeholders have kept watch over a domain of issues including auditor independence and scope of services, contributed to the standards-setting process, addressed global reporting concerns, and worked to deter poor reporting, fraud and internal control weaknesses over the past twenty-five years. What remains for future researchers to address is the task of assessing the impact of these individuals, and their office, in relative and comparative terms.

The political will to address and resolve the issues faced by the SEC is brought to balance at a point on the continuum of choices from market based solutions to those which are governmental mandates. At the present instant, the SEC senior staff appears to be responding to legislative initiatives that support a more substantial role for regulation (i.e., mandates). They refer to the passage of the National Securities Market Improvement Act of 1996 as a basis for much needed regulatory uniformity at the national level (Cutler, 2003, p. 1). Such a new view of Federalism has been reaffirmed in the Sarbanes-Oxley Act of 2002, by conferring greater powers to the SEC as a key capital market's oversight agency and by establishing a new national board to supervise and inspect those who conduct the audits of publicly held companies. The effectiveness and acceptance of this new regulatory regime is far from certain, and it may well be that in the not too distant future once again the public's appetite for market based and deregulatory solutions will prevail.

This article has set forth a background of facts regarding the events and activities that are identified with the terms of service of five persons who served as chief accountants of the SEC from 1976 to 2001. Improving one's understanding of the Commission and its accounting related activities established a basis for more

[33] Accounting authors have long recognized the political nature of the standard-setting process. Zeff expands on this theme in his 1971 lectures (Zeff, 1972).

effective instruction, research and participation in the duties and responsibilities which accountants seek to fulfil.

The record of issues outlined in this article provides support for future research and for particular assessments of individual chief accountants as well as for topics which transcend the entire period of SEC activity.

In concluding it seems appropriate to observe that our views about the commitment, professionalism and personal integrity of each of the five individuals whose terms of office we have recounted are the same. Each dispatched his responsibilities with the dedication, energy and competence expected while exhibiting commitment to public duty consistent with the traditions and expectations of the Office of Chief Accountant.

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Evaluating National Capacity for Direct Participation in International Accounting Harmonization: France as a Test Case

This article evaluates national capacity for direct participation in international accounting harmonization through its principal current formal institutional forum, the International Accounting Standards Board (IASB), with France as a test case. The objective is to derive propositions by which individual nation states, their indigenous accounting professions and other significant elements of their institutional framework might: (a) evaluate their present national capacity to contribute to international accounting harmonization; and (b) address policy issues relevant to development and deployment of capacity for effective engagement. The objective of the framework of analysis employed is to infer essential or desirable attributes for direct participation in international accounting harmonization by reference to the observed attributes of the initial IASB appointments. The likelihood and sustainability of direct French participation in the process is then assessed in relation to those attributes.

Key words: Accounting; France; Harmonization; International.

CONTEXT AND PRELIMINARY REASONING

This article considers the conditions that influence or determine national capacity for direct participation in international accounting harmonization through its principal current formal institutional forum, the International Accounting Standards Board (IASB), with France as a test case. The importance of this issue relates to the IASB structure and process for international accounting harmonization, given that the structure and process are intended to develop accounting standards acceptable in all countries of financial significance, for application in their jurisdictions by law or regulation.

Viewing the historical development of financial accounting and reporting, it is observable that as capital markets develop in a given country, especially markets for trading in listed securities, governments are moved to specify requirements for periodic financial disclosure by specified classes of corporate entities to their owner-shareholders and in certain instances to other designated classes of legal persons. The historical circumstances under which national governments came to take this step and the details of legislative requirements in different jurisdictions have tended

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to vary where unconstrained by international agreement, for reasons explored in the European context by Ebbers and McLeay (1997).

A widely expressed interpretation of the consequence of national variety in financial accounting and disclosure requirements, and associated issues of compliance within jurisdictions, is that comparative international assessment of reported corporate financial information is more costly than would be the case if variety were reduced or eliminated, due in part to greater uncertainty regarding the meaning and reliability of much financial disclosure. Moreover, these adverse cost and risk assessment effects are generally believed to have increased with the growth of international capital markets and cross-border investment. International concern over these issues produced formation of the International Accounting Standards Committee (IASC) in 1973, intended to narrow the scope of international accounting differences. In tandem, a number of countries in the succeeding decades have taken steps to strengthen accounting regulation, recognizing that specification of required accounting practices in the form of formalized accounting standards does not of itself procure sufficiently widespread and satisfactory compliance.

Accordingly, for present purposes it is hypothesized that necessary conditions for accounting harmonization to produce accounting disclosure satisfactory for the needs of international capital markets are:

- development and promulgation of formalized accounting standards; and
- application of accounting standards through a regulatory process to secure adequate compliance with the information outcomes required by those standards.

This is not to imply that the accounting standard setter, whether at national or international level, ought at the same time be charged with enforcement of standards through regulation. But it does indicate that parties wishing to play a significant role in standard setting need to be fully conscious of the regulatory implications of outcomes from their involvement, both as regards regulatory prescription and compliance.[1] In turn, that means attention to the role that government might play either directly in regulation and enforcement or indirectly through contracting out or delegating its authority elsewhere for this purpose, and to the ability and willingness of affected parties to apply professional standards in a manner sufficient to comply with regulation.

Given the necessary linkage between harmonization and regulation assumed for the present purpose, the context within which propositions are to be developed regarding national capacity for direct participation in international accounting harmonization is that of the structure and operation of the International Accounting Standards Board (IASB) and its precursor, the International Accounting Standards Committee.[2] Clearly, the operation of IASB does not itself fully account for the

[1] This point is clearly recognized by the European Commission (Response to the International Accounting Standards Committee Strategy Working Party Report, 30/4/1999, full text, www.europa.eu.int, see *Enforcement*).

[2] Standards adopted by IASB and formerly by IASC are respectively designated as International Financial Reporting Standards (IFRS) and International Accounting Standards (IAS).

full range of efforts in the field of international accounting harmonization, nor is it intended to do so. In addition to IASB, various other particular forums and institutional elements have contributed to the unfolding of international accounting harmonization, such as the former grouping of national accounting standard setters, the G4+1, comprising Australia, Canada, New Zealand, U.K. and U.S.A., with IASC representatives as observers. Moreover, taking the French contribution to harmonization as an example, the French Conseil National de la Comptabilité (CNC; National Accounting Council) has extensively engaged in significant harmonization activities leading to national changes in financial accounting requirements in various Third World and former Soviet bloc countries.

Nevertheless, the pre-eminence of the IASB derives from:

- the potential significance of IASB activities and outcomes, given its aspiration to develop accounting standards for application by companies listed on the major world stock exchanges;
- the degree of professionalism applied to the IASB task; and
- the evident wish of affected parties such as elements of the accounting profession, major companies, especially multi-listed companies, professional financial analysts and governments, to contribute to or influence IASB accounting standards.

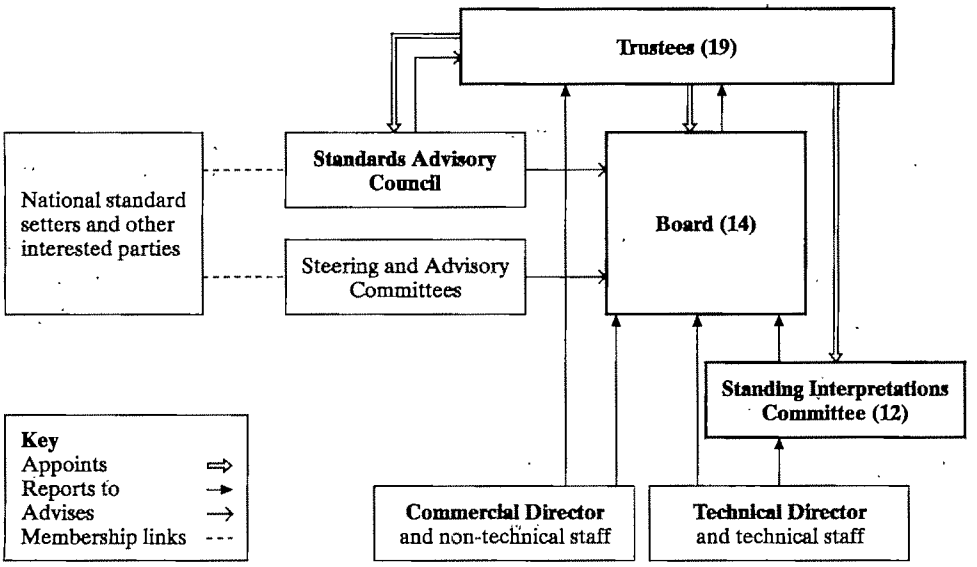
Assessment of national capacity for direct participation in international accounting harmonization that is tied specifically, as here, to the IASB is contingent on circumstances of the IASB itself. As constituted, IASB is an autonomous entity neither embedded in an international treaty arrangement nor answerable to any international organization created by sovereign states. As such, IASB has no juridical or political authority but must instead seek to establish itself through a reputation for superior expertise in the development of internationally acceptable accounting standards. Accordingly, the analysis and findings in this article are contingent on IASB structure and operation under these conditions. If at a later time it were to become subject to formal control by sovereign states or by an international organization established by sovereign states, it is likely that national capacity for direct participation in international accounting harmonization might depend on different criteria, such as the relative international political weight of given nation states.

ESSENTIAL OR DESIRABLE ATTRIBUTES FOR DIRECT PARTICIPATION IN INTERNATIONAL ACCOUNTING HARMONIZATION

The analysis in this section seeks to infer essential or desirable attributes for direct participation in international accounting harmonization by reference to the observed attributes of the initial IASB appointments. This does not imply a judgment about the merits of those attributes, which is essentially an issue related to the ends to be served by the IASB and their political or social validity. Instead, the attributes are simply viewed in an ontological sense.

FIGURE 1

IASB STRUCTURE



As the initial basis for drawing inferences, Figure 1 shows the IASB structure (IASC Strategy Working Party, 1999, Appendix B), as originally proposed for restructuring the IASC and adopted in 2000 for the renamed IASB, covering arrangements for appointment of persons, assignment of tasks and distribution of responsibilities.

Table 1 shows for the twelve foundation full-time and two part-time IASB members, appointed 2000–01 the attributes deemed significant for their appointment.

Table 2 summarizes IASB foundation member attributes from their website profiles.

From the foregoing, the following inferences are drawn regarding essential or desirable attributes for participation in international accounting standard setting.

Language and Communication

As the IASB and former IASC standard setting processes have always been conducted solely in English, effective ability to communicate in English may be regarded as essential. Moreover, native English speakers linguistically dominate IASB staffing, an aspect further reinforced by the appointment, in June 2001, of an Australian and American respectively as Director of Technical Activities and of Research. The implication of this for non-English speakers is profound, in that effective engagement in the IASB process evidently requires its members to have linguistic facility with the discourse of conceptual frameworks prevalent in the English-speaking countries of principal significance to the process, namely, the U.S., U.K. and, to a lesser extent, Australia and Canada. It may be noted that of the four non-native English-speaking IASB members, two are immediate past

TABLE 1

INTERNATIONAL ACCOUNTING STANDARDS BOARD FOUNDATION
MEMBER ATTRIBUTES

Member	Full/part time	Nationality	Native language	Principal prior career	Previous full-time academic experience	Prior standard setting appointment
Tweedie	FT chair	British	English	Accounting standard setter	Yes	U.K. ASB IASC
Jones	FT vice-chair	British	English	Banking		IASC
Barth	PT	U.S.	English	Academic	Yes	
Bruns	FT	German	German	Industry		German ASB
Cope	FT	British	English	Financial investment		U.S. FASB
Garnett	FT	Sth African	English	Industry		
Gélard	FT	French	French	Professional practice		IASC French CNC
Herz[3]	PT	U.S.	English	Professional practice		
Leisenring	FT	U.S.	English	Accounting standard setter	Yes	U.S. FASB
McGregor	FT	Australian	English	Accounting standard setter	Yes	IASC Aust. ASB
O'Malley	FT	Canadian	English	Professional practice		Can. ASB
Schmid	FT	Swiss	German	Industry		IASC Swiss ASB
Whittington	FT	British	English	Academic	Yes	U.K. ASB
Yamada	FT	Japanese	Japanese	Professional practice		IASC

Source: www.iasb.org.uk

Big-5/4 partners and the other two had multinational company career experience (with Daimler-Chrysler and Nestlé), involving substantial exposure to international accounting standards and capital markets. It may further be noted that command of English in the actual selection of board members, ten of fourteen, is more strongly reflected than in the selection of the trustees to appoint the board members, with nine native English-speaking trustees and one additional trustee presumably a native English speaker (with the Bank for International Settlements, Switzerland) of the total nineteen trustees.

[3] The only subsequent modification of IASB membership to October 2002 is the withdrawal of Herz and his replacement by Smith, a U.S. citizen whose IASB profile shows the same attributes in all key respects as Herz.

TABLE 2

INTERNATIONAL ACCOUNTING STANDARDS BOARD FOUNDATION MEMBER ATTRIBUTES SUMMARY

Attributes	English as native language	English not as native language	U.K./U.S. nationality	Other English-speaking nationality	Non-English-speaking nationality
Primary native language	10	4			
Nationality					
U.K.			4		
U.S.			3		
Other				3	4
Total			7	3	4
Prior membership of accounting standard setting body					
IASC	1	1	1		1
IASC + other	2	2	1	1	2
Other	4	1	3	1	1
Total prior accounting standard setting body	7	4	5	2	4
No prior accounting standard setting body	3		2	1	
Full-time academic appointment					
Previous appointment	5		4	1	
No previous appointment	5	4	3	2	4
Public accounting experience					
(Arthur) Andersen	1		1		
KPMG	4	1	2	2	1
PricewaterhouseCoopers	1	1	1		1
Big-5/4 firms	6	2	4	2	1
Other	2		2	1	
Total public accounting experience	9	1	6	3	1
No public accounting experience	2	2	1	1	2

Membership of Epistemic Communities

All fourteen IASB members have been members of relevant epistemic communities, as 'loose collections of knowledge-based experts who share certain attitudes and values and substantive knowledge, as well as ways of thinking about how to use that knowledge' (Braithwaite and Drahos, 2000, p. 501). Of them, five have been

or in one case remain full-time academics, an epistemic community in its own right. Altogether, eleven, including four of the five academics, had been members of IASC and/or national accounting standard setting bodies. Of those eleven, three, all one-time academics and including the IASB chairman, had effectively moved into accounting standard setting as their long-term career path. The three without prior appointment to an accounting standard setting body had been active or held a senior appointment in their professional accounting institutions, or served on committees of a national accounting standard setting body. The comparative advantage conferred by prior experience in accounting standard setting or closely related activities of the professional accounting institutions derives importantly from the shared discourse and expertise of those communities, making experience of this order an almost essential attribute.

Nationality Related to Economic Significance

IASB membership is predominantly from the English-speaking world, with ten of fourteen members, of whom seven are from the U.K. or U.S.A. As two of the British members have mainly spent their working careers in the U.S.A., five of the fourteen members are closely identified with the U.S.A., making them the largest single national group of members, with all that this implies in terms of discourse, concepts and attitudes in regard to accounting standards, the role of the accounting and auditing profession, and capital markets.[4] This in turn is a reflection of U.K./U.S. predominance in terms of largest companies, with sixty-one U.S. and twelve U.K. companies out of the world's largest hundred companies by market capitalization.[5] The four non-English speaking countries with nationals as IASB members account for a further seventeen companies (France four, Germany six, Switzerland five and Japan two). Thus, U.K. or U.S. nationality is by inference a desirable attribute for IASB membership. Failing this, nationality of a country with major multinational companies is fairly desirable.

A further indicator of nationality related to economic significance is given by ranking national gross domestic product, with the U.S.A., Japan, Germany and either France or the U.K. in fourth or fifth position, depending on the measure adopted (www.oecd.org, 2001). Of the fourteen IASB members, ten are nationals of these five countries.

Knowledge Base and Shared Discourse

The evolution of accounting standard setting and its outcomes over the past forty to fifty years shows increasing interconnection between received theoretical concepts relating to financial accounting and financial information inputs to models of risk assessment and security pricing. The conceptual and general intellectual

[4] The IASC Constitution, Clause 25, enjoins the trustees to 'ensure that the Board is not dominated by any particular constituency or geographical interest'. No criteria were set down for the trustees to observe in this regard but presumably the extent of U.S.-based membership was not deemed to be a geographical dominance.

[5] Source: Former IASC website, capitalization 1998.

platform on which this rests has originated without significant exception in the English-speaking world, the U.S.A. in particular, and is widely shared among English-speaking accounting academics and standard setters, to the point of extensive common understanding of its discourse, without necessarily common agreement on concepts, inferences and policy implications. Thus, the three non-U.K./U.S. English-speaking members—from Australia, Canada and South Africa—may as readily share in and contribute to this English-speaking discourse as the U.K./U.S. members. In other words, the ability of smaller English-speaking countries to participate at a conceptual level in international accounting harmonization partly counterbalances their relative national economic insignificance compared to the U.K. or U.S.A. Thus, thorough understanding of financial accounting concepts primarily conceived and expressed in English, as well as related issues of application to harmonization and regulation, may be regarded as an essential attribute for direct participation.

Professional Expertise

The Big-5/4 public accounting and auditing firms, and their principal antecedent firms, have long been active in seeking to contribute to and influence outcomes from accounting standard setting, to the point, in certain countries and times, of drafting key documents in the process of accounting standard formulation and supplying major resources of personnel to the process. Of IASB members, four have either been a Big-5/4 firm national technical partner or partner in the technical support area. Two of these four, together with a further member, served as technical directors of their national professional accounting institutes, a role in which they would have continual interchange with national technical partners of major firms.

To summarize thus far as regards attributes for direct participation in international accounting harmonization, experience with appointment to the IASB as its most significant forum indicates that profound competence is essential in the English-language discourse and conceptual framework of accounting and financial disclosure, as well as in related domains pertaining to capital markets and corporate disclosure strategy. Moreover, the odds for inclusion in the process heavily favour native English speakers. Secondly, English-speaking world nationality is highly desirable, as carrying with it English-language competence, but more especially U.K. or U.S. nationality as a proxy for U.K. and U.S. predominance in the ranks of major multinational companies. Thirdly, eligibility for participation is greatly strengthened by a career path in a national accounting standard setting body, as technical director of a national professional accounting institute or as technical partner in a major firm, especially if these elements are interwoven.

NATIONAL DESIRES FOR DIRECT PARTICIPATION IN INTERNATIONAL ACCOUNTING HARMONIZATION

This section explores why there may be national desires for direct participation in international accounting harmonization. As no general statement could apply equally to all countries that might be affected by international accounting harmonization

outcomes, the argument is necessarily tentative and speculative. The concept of a national desire to participate is not restricted for this purpose to any particular national institutional forum or arrangement, though it does denote a desire for participation by socially or economically significant categories of nationals, rather than individuals as such. Thus, desire for participation might be felt by agencies of the state, such as regulatory bodies concerned with aspects of companies and securities regulation, by elements of the accounting and auditing profession, by major companies, or by the national stock exchanges and professional securities investment community.

Considering firstly the nation state and its constituent agencies, globalization on so many fronts makes nation state participation in international forums increasingly common. It has been argued that in an increasingly interconnected world, the strength of national sovereignty will be demonstrated more by the extent of participation in international forums and globalizing processes than by individual sovereign acts without regard to internationally agreed regulations or standards. As, however, the IASB operates autonomously, without juridical or political authority, a desire by any particular state to achieve IASB membership is not a matter on which its government can take direct action, however much it might wish to see one of its nationals appointed.

Nevertheless, a national government might conceivably seek, in concert with the bodies or classes of entities from which appointment of IASB members is most likely, to position its nationals for appointment or exert pressure to this end behind closed doors. Even without a national government position on IASB membership, those bodies and professional groups principally affected by harmonization outcomes will most likely wish to influence the process. These will include national standard setters where they exist, institutions of the accounting and auditing profession and their members, listed companies to which international accounting standards apply or might in the future be applied and, to some degree, the national community of financial analysts, fund managers and investors generally. The strongest chance for exerting influence on international accounting harmonization is assumed to be via IASB membership, with reduced chances for the various parties of interest dependent on their possibilities for influencing a fellow national appointed as IASB member or other IASB members.

The motivation for seeking to influence harmonization outcomes can obviously be explained in terms of national pride and self-esteem. More pointedly, it is likely to be grounded in belief in the superiority of whatever principles are claimed to underlie national standards of financial accounting and disclosure, auditing and related regulatory arrangements. For all the circumstances that produced national variety in accounting regulation in the first place, attempts to reduce that variety are certain to produce contests of principles (observed by Braithwaite and Drahos, 2000, in all fields of global business regulation examined by them). Many examples of this phenomenon in accounting harmonization spring to mind. The effort and enthusiasm in the 1970s and early 1980s for substitution of historical by current cost accounting (CCA), so marked in the U.K., Australia and New Zealand, was not similarly matched in the U.S.A. or Canada, and encountered opposition in

Germany.[6] More serious cross-national analysis and comparison at the time of divergent national views and circumstances relating to the issue might more readily have shown that CCA was not destined to win the contest of principles involved without U.S. commitment (as it did not). The more recent adoption in the English-speaking world, in varying measure, of marking-to-market and fair value and attempts to apply them internationally have created another as yet unresolved contest of principles, especially with certain Continental European countries for which the concept of fair value radically changes received notions, especially among financial institutions, of risk assessment and disclosure approaches to short-term value fluctuations.

Loss of contests of principles or failure to be closely identified with principles that prevail threatens significant and potentially destabilizing change for the losing professional and business communities. Having lost or failed, they are demonstrably not the authoritative sources of expertise in understanding or applying the winning or prevailing principles. This in turn carries risks of loss of control to those perceived as expert. The consequence of the international domination of Anglo-American financial accounting standards and approaches is seen in the extent to which audit of even non-English-speaking multinationals has more and more passed to the Big-5/4 auditing firms.[7] More dramatically, the spread of shareholder value-added concepts and strategic approaches to creation of value and its measurement are having widespread and profound effects on the market for corporate control, even in non-English-speaking countries.[8]

The composition and responsibilities adopted for the IASB reflect the success of certain countries in being accorded a privileged right of participation, as envisaged in the IASC Strategy Working Party Report, 1999, as follows:

> The Working Party believes that, in developing International Accounting Standards, IASC should work closely with national standard setters to reach mutual agreement on what is the highest quality result. (para. 15)
>
> Seven (7) of the new Board's members would be expected to have formal liaison responsibilities with national standard setters who would play a major role in developing International Accounting Standards and would assist the IASC in achieving convergence of accounting standards around high quality solutions. (para. 19(c))

The foregoing concept of liaison was duly adopted, IASC Constitution, 2000, Clause 27, as part of the specification of composition and responsibilities of the board (Clauses 23–37). As required, the trustees appointed seven members as official

[6] See Tweedie and Whittington (1984), for comparative analysis of responses in the countries cited to the issue of current cost accounting. Pong and Whittington (1996) describe the demise of CCA in the private sector in Anglo-American countries in the 1980s.

[7] For example, the *Accountancy* 2001 survey shows that all FTSE 100 companies were audited by Big-5/4 auditing firms and of the FTSE 250 companies, only fifteen were audited by other than Big-5/4 auditing firms (*Accountancy On-line*, www.accountacymag.co.uk).

[8] See, for example, Commission des Opérations de Bourse, *Recommandation No. 2001–01 relative à la communication des émetteurs sur la création de valeur actionnariale*, which surveys and presents guidelines for reporting by listed French companies of measures of value added. All the methodologies surveyed originated in the English-speaking world, primarily in the U.S.A.

liaisons to national bodies and in the same announcement stated the countries with formal liaisons as Australia and New Zealand taken together, Canada, France, Germany, Japan, U.S.A. and U.K. In comparison, the principle of geographical balance, adopted for selection of the nineteen trustees (six to be appointed from North America, six from Europe, four from the Asia/Pacific region and a further three from any area, subject to establishing overall geographical balance) (Clause 9), was specifically rejected as a selection criterion for board members (Clause 25). The Constitution further provides that commencing three years after its coming into effect (therefore, in 2003), the trustees are to undertake a review of the entire structure of IASB and its effectiveness, such review to include consideration of changing the geographical distribution of trustees (Clause 22(b)). There is no specific provision for reconsideration of the liaison principle or designation of the countries with formal liaisons, though presumably this could be addressed as part of a review of the entire structure. It thus appears from the outset that the seven designated countries with formal liaison have been accorded a privileged participation status that seems unlikely to change, short of some major upheaval relating to IASB as a whole.

KEY ELEMENTS OF CAPACITY FOR PARTICIPATION IN INTERNATIONAL ACCOUNTING HARMONIZATION, ILLUSTRATED BY REFERENCE TO FRANCE

In this section, key elements of capacity for direct participation in international accounting harmonization are examined and illustrated with France as a test case, based on the identification of essential and desirable attributes established above.

Language and Communication

The emergence of English-language competence at a profound level of conceptual understanding as an essential attribute for participation in international accounting harmonization arguably poses a particular problem for France. This arises from deep cultural belief in the world importance of the French language, reflected in the persistent official position and actions of the state to oppose the spread of usage of English within France where deemed inimical to French language usage, to insist on usage of French wherever possible in international forums and to propagate its use internationally.

The French accounting standard setting body, the Conseil National de la Comptabilité (CNC), is the French body with which IASB will be in liaison for purposes set out by the IASC Constitution. This has in fact been the unofficial position for some years past, especially following adoption of the EU Seventh Directive which for the first time created a real need for France to be aware of international accounting standards concerning consolidated accounts and to consider their *de facto* adoption by French major companies seeking securities listing outside France. The CNC operates administratively and for budgetary purposes within the Ministry of the Economy, Finance and Industry. It has neither effective autonomy nor regulatory authority. The accounting law reform of 1998 established

a related entity, the Comité de la Réglementation Comptable (CRC; Accounting Regulation Committee), which operates using staff and resources of the CNC and is charged with adoption of accounting regulations following CNC recommendations or statements of best practice (CNCC and OEC, 2001).

Although some executive and technical CNC staff members have a degree of English language competence, the CNC has not been in a position from its internal resources to originate documents in English dealing with accounting issues of conceptual complexity and has only in recent times begun to develop or acquire high-level English-language competence through staff development or recruitment. Given that its interaction with IASC/IASB has had to be conducted in English, the CNC has on many occasions been reliant on access to English-language competence elsewhere, for example, within Big-5/4 firms in France.

Membership of Epistemic Communities

The CNC may be regarded as the national standard setting body of longest standing, originally established in 1947 as the Conseil Supérieur de la Comptabilité and renamed as at present in 1957, without significant change to its remit. Over many years, the CNC has been active in the international arena, principally to propagate the core and distinctive French approach to financial accounting regulation through imposition of a detailed national accounting code (Standish, 1997). A broadly similar approach has been adopted within the EU by Belgium, Greece and Spain, leading in the case of Spain to sustained interaction through a standing Franco–Spanish Commission. Further afield, the CNC has long been involved with Francophone countries of Africa, advising on development of national accounting codes, as well in recent years with former Communist countries, especially Romania and Vietnam. None of these countries, however, is internationally significant from the viewpoint of developed capital markets or institutions of the accounting and auditing profession, and none of them has nationals included in the IASB trustees, let alone on IASB. In other words, though its international involvements have placed the CNC within international epistemic communities concerned with raising accounting standards, often in the role of prime mover and leader, the communities in question, omitting France as such, have no evident influence on high-level international accounting harmonization.

The French accounting and auditing profession was a founding member of IASC in 1973 and has consistently participated in the community that evolved to support and conduct the IASC process, with a French national, Georges Barthès de Ruyter, as IASC Chairman from 1987 to 1989. The same person was appointed president of the reconstituted CNC, as part of the accounting law reform process of 1998. As the first CNC president to be neither a current nor retired French civil servant, but with senior experience in a Big-5/4 firm, this pointed the way whereby France was now well-positioned to take advantage of long-standing involvement of its professional institutions in the IASC epistemic community and involvement of the CNC with other EU, European and Francophone countries.

Fruitful involvement in any wider international epistemic community requires accommodation between dominant values of its constituent members and those

TABLE 3

COMPARISON OF KEY CNC AND IASB STRUCTURAL AND OPERATIONAL INDICATORS

Indicator	CNC	IASB
Relationship to the state or states	Agency of the Ministry of Economics, Finance and Industry	No defined relationship to any international treaty organization
Membership	Largely comprises representation of designated interests of state and non-public sector constituencies	Appointed primarily on the basis of technical expertise in accordance with IASC Constitution, Clause 24
Public sector members	Substantial representation	No representation
Funding	Solely from government	Private sector
Technical staff	Mostly civil servants	Not civil servants
Meetings open to the public	No	Yes

that emerge in the international forum. The CNC as a standard setting body operates in a manner substantially different from IASC to date or from the expected future operation of the IASB, as indicated in Table 3.

Given the general similarity in objectives, structure, process and nature of outcomes of national standard setters in the English-speaking world, it might be supposed that French involvement with the IASC/IASB would stimulate consideration of the merits of modelling the CNC so as to function in a manner more closely resembling that of its English-speaking world counterparts. Following the accounting law reform of 1998, it was apparent that the new CNC president, well versed in IASC procedure, wished to move in this direction. Major shifts toward a more autonomous and flexible process, especially if this implied financial autonomy and managerial discretion in recruitment of expertise from a wider field outside the French civil service, would inevitably have been problematic. In the event and following increasing tension over these issues, the president resigned in 2000, part way through a renewable six-year term, but without these basic issues of organizational structure and process seriously reappraised or modified.[9] His successor, a retired former Big-5/4 managing partner appointed in 2001, had not previously participated in French or international accounting standard setting.

A particular consequence of the relative English language incapacity of the CNC, together with its own lack of direct experience of engagement with standard setters outside the French-speaking world, was that the CNC would have been unable, for example, to participate in the former G4+1 forum, which played an important role in enabling the standard setting bodies from Australia + New Zealand, Canada, U.K. and U.S.A. to work more closely together with IASC, thereby sharing conceptual ideas and discourse. It was observed that the growing importance

[9] The background to the resignation, tracing these issues, was dealt with immediately afterwards in an article, 'Le président du Conseil national de la comptabilité sur le départ', *La Tribune*, 5 July 2000.

of the G4+1 as a source of coordinated input to IASC provoked uneasy sentiments outside the English-speaking world, for example, in debates during proceedings of the CNC. Associated with this was the attempt to create a somewhat parallel EU grouping, to include the CNC, an attempt without observable influence on IASC or international accounting harmonization.

National Economic Significance

Composition of the IASB indicates that national economic significance is a desirable but not determining factor for appointment. As one of the first half-dozen countries by gross domestic product (GDP), France was in that regard well placed, though for comparison similar GDP ranking was insufficient for Italy.

Knowledge Base and Shared Discourse

From experience in the English-speaking world, the possibility of a nation readily participating in and contributing to the knowledge base and shared discourse dominant in international accounting harmonization depends in the first instance on emergence of academic inputs able to command attention and on their acceptance to an appropriate degree in the wider national community of the accounting and auditing profession and capital markets. Academic inputs crucial for this purpose are in the nature of deductive conceptualization regarding the purposes and function of financial accounting and reporting, and empirically grounded investigation of the information value of reported financial information. These inputs are described as academic, not because they are uniquely the preserve of academics, but because the history of accounting standard setting shows the comparative advantage held by academics, or by standard setters who were formerly academics, in providing inputs to the construction of conceptual frameworks and early development stages of conceptually complex standards.

The importance of these inputs lies in their role in constructing what may then become a shared discourse between parties with divergent interests, without which negotiations or conflict over standards can only be settled by coercion. Stated another way, the construction of a shared discourse provides otherwise weaker parties with the prospect of gaining acceptance for their viewpoint through appeals to more powerful argument as a counterbalance to lack of coercive power. While emergence of academic inputs derives ultimately from individuals, the experience of accounting standard setting suggests that the likelihood of particular inputs gaining acceptance is conditional on contributions by individuals achieving a critical mass of acceptance by their wider national academic and professional community.[10]

In the case of France, there were significant academic inputs in the 1940s with influence on the development and adoption of the French national accounting

[10] An example is seen in the history of current cost accounting in the U.K. adoption of a framework for current cost accounting as the accounting standard SSAP 16 was only possible because of the emergence of support or advocacy from a group of prominent academics. That SSAP 16 was not adopted as a mandatory standard and was ultimately discarded altogether reflected the failure of academic opinion to prevail in a climate of widespread professional ignorance of, disinterest in and open hostility to academic theorizing on the subject.

code, the *Plan comptable général* (PCG; Standish, 1990). The relevant community of academics at the time was numerically small but certain members were well placed to gain acceptance for their views in the accounting profession and key agencies of the state. Their concerns and contributions primarily addressed issues of accounting transaction classification, with little attention to concepts of valuation and none to empirical testing of information value. Moreover, these academic inputs were primarily intended to assist the state in its role as prime mover in post-war economic reconstruction. Not surprisingly, development of the PCG was quickly subjugated to the interests of the state, which imposed markedly different characteristics on its construction and institutional framework from those that concurrently emerged in the English-speaking world to deal with accounting standard setting (Colasse and Standish, 2000, forthcoming). Subsequent regulatory adoption of the PCG both for commercial and tax accounting, and the evident difficulty of achieving significant revision to the PCG or reconsideration of its underlying objectives, have tended to ossify French academic consideration of the domain of financial accounting.

As a consequence, the French academic accounting community remains largely uninvolved with international accounting research and its dissemination. As an indicator, Table 4 compares French academic presentation of papers at the European Accounting Association (EAA) Congress, 2001, with that of selected other EU countries, namely Finland, Germany, Italy, Netherlands, Spain, Sweden and the U.K. This comparison is pertinent given the role of the EAA Congress as the most inclusive and best known forum for early dissemination of European accounting research, ahead of publication. At the same time, it is a refereed forum with a significant rejection rate for presentation proposals and operates with the requirement that all papers be written and presented in English. Congress papers are grouped each year by standardized themes, from which a selection is made in Table 4. As there were papers from other EU countries and on themes other than those listed in the table, row and column totals are for total Congress EU paper presentations, not for selected themes and countries.

The data in Table 4 support the following observations:

- There were no French papers under the theme of accounting and capital markets, though this is the primary area for empirical research related to accounting standard setting and decision usefulness of financial statements to investors.
- Although the PCG is a national design for an accounting information system, raising many questions about system design both at individual entity level and at national level, there were no French papers under this theme.
- Under the themes of accounting and capital markets, accounting theory, auditing, financial reporting and international accounting, all of key relevance to accounting standard setting, there were three French out of sixty-five EU papers, though in contrast, two of the nine papers on international accounting were from French academics.

Table 4 highlights the significance of English-language as a factor in paper presentation. Including data for the other EU countries in addition to those shown in

TABLE 4

COMPARISON WITH SELECTED EU COUNTRIES OF FRENCH ACADEMIC PRESENTATION OF PAPERS AT THE EUROPEAN ACCOUNTING ASSOCIATION CONGRESS, 2001

Theme	Fra	Fin	Ger	Ita	Net	Spa	Swe	U.K.	EU
Accounting and capital markets	0	0	1	0	1	3	0	1	7
Accounting and strategy	1	0	0	1	2	0	4	1	9
Accounting information systems	0	0	1	0	1	3	0	1	7
Accounting theory	0	1	1	1	0	1	2	2	8
Auditing	1	1	1	0	1	3	1	8	21
Corporate governance	0	0	0	0	1	0	0	3	5
Financial reporting	0	2	1	1	0	3	2	5	20
International accounting	2	0	2	1	1	2	0	1	9
Management accounting	4	4	2	0	8	2	6	7	37
Public sector and non-profit accounting	1	1	1	1	2	1	4	4	18
Total per country (all papers)	10	11	14	7	22	26	25	49	201

the table, there were 52 U.K. and Irish papers in the total of 201, and a further 78 from Denmark, Finland, Germany, Netherlands and Sweden, all countries with strong command of English in their academic accounting communities. Nevertheless, the comparison between France and Spain is instructive, with a total 10 French and 26 Spanish papers, including 3 French and 12 Spanish papers from the themes identified above as of particular relevance to accounting standard setting. The results for Spain confirm the rapid emergence of Spanish accounting research at an international level from a starting position within recent years of limited English-language competence for this purpose and little interest in research themes of international significance.

Within France, it is not evident that academic accounting has yet attained significant wider professional or regulatory influence. The institutions of the accounting and auditing profession, the Compagnie Nationale des Commissaires aux Comptes and the Ordre des Experts-Comptables, provide scant academic accounting resource support and show little interest in French accounting research outcomes. Indeed, the professional bodies have continued to undertake large conceptualization projects without significant academic input.[11] CNC membership has from its origin included persons appointed for personal standing in the field of accounting, a category which has always included one or more academics, but CNC proceedings and outcomes have been far more influenced by non-academic interests, notably the tax administration, major companies and, more recently, the accounting and

[11] See, for example, the conceptual framework for accounting proposed by a professional committee (Cailliau, 1996) and its subsequent comprehensive academic criticism (Colasse, 1996).

auditing profession (Standish, 1997, Ch. 4). Thus at present and for the foreseeable future, France is unable to match the concentrations of relevant academic expertise present in those English-speaking countries with long experience of accounting standard setting represented by nationals on the IASB.

Professional Expertise

A crucial further element in national capacity for direct participation in international accounting harmonization is the emergence of relevant expertise in the accounting and auditing profession. In the English-speaking world, this has particularly been associated with concentration of supply of audit to major listed companies, to the point where this market is dominated by the Big-5/4 firms. These firms, with their characteristic audit client base of major listed companies, are particularly well placed to assess regulatory consequences of accounting standards for their clients and to observe client strategies and tactics in response. If academics have comparative advantage in conceptualization, the major audit firms have advantage in understanding market reaction to standards. The combination of these two advantages is highly important for building capacity to contribute to accounting standard setting and associated regulation. Natural bridges for bringing the two together occur through substantial recruitment by the major firms of tertiary graduates and more particularly through linkages between academe and major firm technical support functions, creating the conditions for a shared awareness between academics and practitioners of conceptual frameworks, empirical findings and regulatory issues.

In France, the pathway taken to develop and impose accounting standardization through the PCG produced a rigid framework requiring close attention to classificatory issues for its application. Its presentation conventions and associated accumulated investment of human capital in skills acquisition and educational systems for its propagation have made it conceptually and technically difficult for France to move to general adoption of IFRS or any other foreign standards such as U.S. generally accepted accounting principles (GAAP; a particular illustration of the argument in Licht, 1999, p. 102). This state of affairs initially inhibited penetration in France by Anglo-American accounting approaches and strengthened indigenous opposition to foreign influences. As far as can be seen, this has substantially abated, with Big-5/4 firms now prominent as appointed statutory auditors to major companies.[12] Concomitantly, the technical support needs of major audit firms, whether Big-5/4 or indigenous, are strengthening the links between firms and tertiary educational institutions that serve as sources of graduate recruitment. It is less evident, however, that the major audit firms are directly interesting themselves in French academic research inputs of possible relevance to issues of accounting standards. Meantime, the PCG remains applicable to individual accounts of commercial entities, requiring sustained technical mastery of its details and hence

[12] French law requires listed companies to make a joint appointment of statutory auditors. Hence, in the case of major companies, Big-5/4 firms frequently share the appointment with a major indigenous French audit firm.

constitutes a diversion of professional expertise from a focus on international accounting standards and practices, notwithstanding that IFRS will apply as from 2006 to listed company consolidated accounts, subject to certain conditions (EU Regulation [EC] No. 1606/2002; see also, 'Coercion and Forum Shifting' below).

Summary of Key Elements for French Direct Participation in International Accounting Harmonization

Assessment of the key elements of French capacity for direct participation in international accounting harmonization shows that the strongest French card, relative to IASC restructuring and IASB appointment, was the existence and operation of the CNC.

The CNC has long been active internationally, though not directly in the English-speaking world. Nevertheless, adoption of the EU Seventh Directive for the first time forced the CNC, the French accounting and auditing profession, and listed companies to take serious note of foreign standards relating to consolidated accounts and connected issues such as currency translation, and to develop and express positions on these issues for participation in international accounting forums. For this purpose, the CNC has from time to time supplemented its own limited in-house English-language capacity by recourse to Big-5/4 firms in France. As well, both the immediate past and current CNC presidents were previously senior partners in Big-5/4 firms, one with extensive participation in international harmonization and both with English-language competence. Finally, France consistently ranks among the top half-dozen countries by national income and has a growing extent of relevant expertise in the major audit firms, whether Big-5/4 or indigenous.

Against this, elements of difficulty for sustained participation by France in international accounting harmonization are the relatively thin spread of English-language competence in the conceptual discourse of accounting standard setting and the relative paucity of French academic inputs to conceptualization projects compared with the English-speaking world. These factors mean that France has a restricted pool of potential IASB appointees to draw upon[13] and that the limited intellectual platform from which it might derive conceptual inputs for international accounting harmonization makes France more likely to play the role of a follower, rather than leader, in driving the IASB process.

POLICY ISSUES TO BE ADDRESSED FOR DIRECT NATIONAL PARTICIPATION IN INTERNATIONAL ACCOUNTING HARMONIZATION

In this section, consideration is given to policy issues to be addressed for effective national participation in international accounting harmonization. Effective participation is taken to mean actions leading to involvement and influence on actual

[13] It is believed that although the IASC trustees reviewed over 200 candidates for IASB positions, there was only one French candidate, namely the person subsequently appointed.

development and adoption of IFRS. In addition to effective participation, consideration is also given to actions that may be intended to prevent or obstruct the development and adoption of IFRS. Depending on the interplay within a given country of parties interested in the international standard setting process and its outcomes, a given issue might be more appropriately addressed by government, the national standard setter, where one exists, the accounting and auditing profession, or other interested parties. Moreover, national participation is for this purpose enlarged to include groupings of nations, such as with the grouping of Australia and New Zealand for IASB liaison purposes or, as is set to happen, with the EU for purposes of applying IFRS to EU listed companies. The argument draws on analysis of global business regulation (Braithwaite and Drahos, 2000), further interpreted in light of factors particular to international accounting harmonization identified above.

Possibilities for national participation relate to desires and actions that individual nations or groupings of nations may take to advance their interests. They also relate to the position under the IASC Constitution, whereby no country has of right any direct mode of participation in the IASB process, and to the strategy proposed for IASB, as follows: 'To provide an international organization that will enable the achievement of IASC's stated objectives by acting as a leader in finding the best accounting solutions and facilitating convergence of accounting standards internationally through working together with national standard setters' (IASC Strategy Working Party, 1999, para. 11).

As noted, this strategy has in a sense been formalized through appointment of seven IASB members as official liaisons to eight designated countries. Reasons for selection of the designated countries have not been publicly stated by IASB, nor is it publicly known when the designation decision was taken. At one level, inclusion of U.S.A. and the U.K., and probably France, Germany and Japan, is an obvious reflection of *Realpolitik*. Inclusion of Australia and New Zealand together and Canada is less obviously explicable in such terms. Moreover, designation of countries to match the constitutionally required seven liaison members precluded other countries and must create expectations about constraints on future possibilities of changing the list of designations. Apart from the foregoing, participation is seen as related to the choices open to individual countries to participate in market-driven convergence toward adoption of IFRS (Strategy Working Party, 1999, para. 13).

The following considerations are expressed generally in regard to participation and are therefore not contingent on whether or not a given country has been designated for official liaison purposes. In other words, each of the following issues is for individual nations or their relevant constituent professional interest groups to address, though obviously capacity to take action on particular issues will vary greatly, depending on whether a given country has an official liaison or exhibits other national attributes essential or desirable for participation in the IASB process.

Actors

The actors directly involved in international accounting standard setting, namely IASB members, may be expected to reflect some mix of personal convictions and

influences grounded in national attitudes and lobbying by national groups, such as particular classes of enterprises or other interest groups, for example, international audit firms. In turn, the members may be expected to build support within the constituencies to which they most readily relate for the work of IASB and in particular for adoption of IFRS, a role formalized in the case of the seven official liaisons to national bodies. National participation will most readily operate through IASB membership of a national citizen. Failing this, it will depend on the effectiveness of interest groups in making their case to IASB as such or through particular members. Nations without a national as IASB member, and in particular those countries not accorded formal liaison, would need, if they wished in future to achieve that status, to address whether they have effective capacity to achieve and sustain significant involvement in the international community of standard setters through actors of perceived standing, as well as the measures needed to achieve that capacity.

Contests of Principles

The evolution of international accounting harmonization shows the process as marked by contests of accounting principles, a feature that may be expected to continue and even intensify. These have particularly centred on issues of transparency, for example, in relation to the practice of hidden reserves; timeliness, for example, in relation to frequency of accounting for value fluctuations; comprehensiveness, for example, in relation to off-balance sheet commitments; and accounting value recognition, for example, in relation to goodwill and other intangibles. More fundamentally, it might be said that contests of principles experienced in international accounting harmonization turn in many cases on substantially differing national attitudes and practices in regard to corporate governance, especially as regards listed companies, and on arrangements concerning the degree of connection between commercial and tax accounting.

These contests have come increasingly to be settled within an overall accounting standard setting culture and discourse of continuous improvement and best available practice. They have been less and less driven by search for the lowest common denominator, as arguably the IASB process has become more robust in its determination to reduce the range of permissible optional accounting treatments. In staking out positions on accounting principles, national actors therefore need to understand the dominant cultural values and discursive practices of the IASB process within which their preferences need to be expressed.

In addition to the issue of accounting principles, there are structural principles. IASB is constituted on a fundamentally technocratic view of its mission, as follows: 'The foremost qualification for membership of the Board shall be technical expertise' (IASC Constitution, 2000, Clause 24).

Allied to this is its view about the best way to draw on technical expertise in designated countries. As the IASB structural principles do not have political or social legitimacy, it will be surprising if they are not in future challenged, particularly in relation to the narrowly based national composition of IASB membership.

Moreover, the issue of the principles to which technical or other expertise is to be applied is in itself potentially contentious. The IASC Constitution states as its first objective: 'To develop, in the public interest, a single set of high quality, understandable and enforceable global accounting standards . . . to help participants in the world's capital markets and other users make economic decisions' (IASC Constitution, 2000, Clause 2(a)).

It may be assumed that reference to other users is little more than a gesture to those who would wish accounting standards to serve wider interests than are attributed to capital market participants. But concern about performance of multinational companies, in particular, demonstrably shapes political and social attitudes far beyond those directly connected with capital markets, as protests regarding the World Trade Organization and Davos World Economic Forum show. There are many performance attributes potentially reportable by companies that could be brought within the scope of standardization and regulation, in addition to those in existing IAS/IFRS or most national legislation, for instance relating to employment and environmental practices or commercial involvement in what are deemed socially unacceptable practices. It will be surprising if issues relating more to non-financial performance measures and externalities to the entity do not give rise to contests of principles regarding IASB objectives and agenda.

Coercion and Forum Shifting

As with other examples of international harmonization and regulation, IASB is subject to possibilities of coercion and forum shifting. The sole individual country in a practical position to coerce IASB in relation to its process and outcomes is probably the U.S.A. and, indeed, the restructured IASB and related arrangements reflect a significant degree of U.S. coercion. The EU might come to have potential for coercive power in relation to IASB, as for example it does in world trade disputes, but in the field of accounting and capital markets it is at present insufficiently organized and coordinated for this.

Of importance to the future of IASB and effectiveness of its outcomes is the potential for forum shifting. In relation to IASC efforts prior to establishment of the IASB to gain endorsement of IAS by the International Organization of Securities Commissions (IOSCO), with the crucial aspect of the possible attitude of the U.S. Securities and Exchange Commission (SEC), it seems plausible to interpret American actions as at times consistent with a wish or even strategy to shift control over international accounting standard setting effectively to the U.S. Financial Accounting Standards Board (FASB).[14] The attractions for non-U.S. multinational companies of U.S. security market listing have been so powerful of recent years as to induce increasing adoption of U.S. GAAP, even by companies incorporated in countries, notably Germany, which formerly exhibited discomfort with or rooted

[14] See, for example, the FASB (1999) critique on similarities and differences between IAS and U.S. GAAP. At one level, this might merely be regarded as an exercise in technical analysis. At another level, it may have been intended to raise an insurmountable barrier to endorsement of IAS by the U.S. SEC.

opposition to any modification of their native accounting principles. As the cost to a multinational group of making any radical change to the basis for consolidation is presumably substantial, involving creation of a new internal accounting culture and differently measured set of management performance targets, the inference may be drawn that companies taking this course of action hoped to see the emergence of a critical mass of leading non-U.S. multinationals sufficient to drain away the case for mandated imposition of IFRS by the EU or a significant role for the IASB independently of FASB.

Another indication of potential forum shifting arises from the European Commission proposed endorsement mechanism to determine the applicability of IFRS, having regard to the requirement that they be compatible with EU law relating to financial disclosure by companies (Commission of the European Communities, 2000 and EU Regulation [EC] No. 1606/2002). The mechanism will be a two-tier structure combining the Accounting Regulatory Committee of EU member states representatives and an accounting technical committee established as a private-sector initiative, named the European Financial Reporting Advisory Group (EFRAG), comprising the main actors interested in financial reporting, including users, preparers, the accounting profession, an academic and national standard setters.[15] This mechanism is significant in two respects. First, it specifically reinstates a European nation state role in the approval of IFRS for application in the EU. Second, it creates in the EU Accounting Regulatory Committee and EFRAG two poles of direct influence on the endorsement process, capable in turn of being lobbied by national interest groups through political channels in the one case and professional and business channels in the second.[16]

Thus, interested parties in international accounting harmonization and the IASC process in particular may seek, if within their capacity, either an occasion to coerce the IASB or, as a way of gaining leverage otherwise unattainable, to shift effective consideration of IFRS to a different forum.

Capacity Building for Participation in International Accounting Harmonization

Less dramatic and risky than possibilities of coercion or forum shifting are measures that individual nations may take to enhance capacity for participation in international accounting harmonization, and the IASB process in particular. The most obvious are:

Establish a National Accounting Standard Setting Process Countries without a prior recognized accounting standard setter are, on the evidence of IASB appointment, highly unlikely to have a national appointed to IASB, unless their international financial significance is accepted as so great as to outweigh this consideration (Japan being the only example to date). Having a standard setter, however, does

[15] Appointed June 2001 (see www.iasb.org.uk for details).

[16] Given the ongoing tension within the EU over the relative extent to which it exists to pursue economic or social objectives (Dougan, 2000), it cannot be assumed that high-level political resolutions for development of the EU single market in financial services would necessarily prevail.

not of itself guarantee IASB liaison status or appointment of a national.[17] The scale of resource commitment required for this step may seem to rule out most countries, though notably it has not ruled out New Zealand. Encouraging more countries or country groups to establish recognized standard setters might seem perverse, given the IASB objective to reduce accounting variety. On the other hand, many countries find for domestic reasons that they need to address conceptual framework and particular accounting issues not on the IASB agenda (as advocated for France in Barthès de Ruyter *et al.*, 2000). As well, the existence of a setter, on the experience of those countries with such bodies, acts as a powerful trigger for mobilizing intellectual and technical resources, raising consciousness of what is at stake and what is proposed, while at the same time providing impetus for standard setting to be moved away from bodies such as tax administrations that have an agenda at odds with IFRS and lack expertise to operate in an arena with major international ramifications. An obvious way to approach establishment of a national standard setter is to use other existing standard setting bodies as models for structure and process. Thus, the Australian and U.K. standard setting bodies have been modelled in many respects on the U.S. FASB, as has now the IASB, and even at a very late stage in the day prior to establishment of IASB was the Deustches Rechnungslegungs Standards Committee (German Accounting Standards Board).

Develop Capacity to Address Complex Accounting Issues in English Language The issue of language is so evidently controversial that developing capacity to address and conduct discourse in complex issues in English language may be too unpalatable for some nations to consider. Without English-language capacity, particular countries will find it difficult to participate.

Become Closely Involved in the Relevant Epistemic Community of Standard Setters Although France does not have extensive professional capacity to address complex financial accounting and reporting issues in English language, it established an early pattern of close involvement in the IASC process. For this, it was sufficient over the years to be able to field a limited number of individuals with English-language competence and other desirable attributes. The important lesson for other non-English-speaking countries to consider is how France has sustained a consistent high-level involvement. A model for what more specifically they might seek to achieve is given in recent Australian proposals (Australian Accounting Standards Board, 2001).

Encourage Development of the Knowledge Base and Sharing of Discourse Effective participation in the IASB process requires ability to share in discourse based on dominant accounting principles. Arguments that nakedly assert or only thinly disguise the priorities of sectional interest groups appear to be less successful, unless they can be coupled with threats of coercion or forum shifting, as has happened in the U.S.A. when FASB proposals have been thwarted through

[17] Within the EU, for example, standard setting bodies exist in The Netherlands, Spain and Sweden, in addition to France, Germany and the U.K. (www.europa.eu.int/comm/internal_market).

Congressional lobbying. Short of such extreme measures, a more fruitful approach is to master the conceptual apparatus and discourse pertinent to the process. Among other aspects, experience indicates that this requires the emergence of a sufficiently strong academic community, as well as indigenous technical expertise within the accounting and auditing profession.

CONCLUSION

National capacity for direct participation in international accounting harmonization in a globalizing world presents opportunities and obstacles. Unless a country turns its back completely on interaction by its corporate and financial services sectors with international capital markets, it has no choice but to develop accounting regulation significantly related to the outcomes of international accounting harmonization. Either it accepts those outcomes passively or it seeks to participate effectively in the harmonization process. Entry to that process imposes significant costs, in terms of mobilizing requisite intellectual and technical resources. Those costs may alternatively be regarded as an essential investment in financial modernity and ability to play a national role in the world's financial councils and system.

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JULIE COTTER AND MARK SILVESTER

Board and Monitoring Committee Independence

This study focuses on the composition of boards of directors and their monitoring committees (audit and compensation) for large Australian companies. For firms whose boards use a committee structure, much of the monitoring responsibility of the board is expected to rest with the independent committee members. We document a positive association between the proportion of independent directors on the full board and its monitoring committees, and a greater proportion of independent directors on both audit and compensation committees than the full board. Our hypotheses tests involve an examination of the impact of other mechanisms used to control agency conflicts on full board and committee independence, and the association between this independence and firm value. We find that full board independence is associated with low management ownership and an absence of substantial shareholders. Audit committee independence is associated with reduced monitoring by debtholders when leverage is low. While we predict a positive relationship between board and monitoring committee independence and firm value, our results do not support this conjecture.

Key words: Agency costs; Audit; Boards of directors; Committees; Compensation; Corporate governance.

This study focuses on the independence of boards of directors and their monitoring committees (audit and compensation)[1] for 109 large Australian companies whose boards have chosen to use a committee structure. Committees represent a mechanism for companies to organise their boards such that they make effective use of directors' time (which is limited, especially for non-executive directors). In Australia, the Bosch Committee has recommended that boards be comprised of a majority of independent, non-executive directors.[2] Pease and McMillan (1993) specifically

[1] Monitoring committees are one of two generic committee types identified by Harrison (1987). The other generic type relates to management support or operating committees. While nominations committees may also be considered as monitoring committees, this type of committee does not have a distinct monitoring function and is therefore not included in our study.

[2] The Australian Investment Managers' Association (AIMA) in its Corporate Governance Guidelines has espoused similar views. Overseas, the importance of independence on boards has been reinforced by the Blue Ribbon Report in the U.S. and by the Cadbury Committee on the Financial Aspects of Corporate Governance in Britain.

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highlight the importance of director independence during the audit process and executive remuneration determinations; the two key functions of monitoring committees investigated in our study. Independent non-executive directors are regarded as being in a better position than non-independent directors to effectively monitor executive management (Stapledon and Lawrence, 1997). Their independence allows them to provide objective assessments of firm actions and to ensure that there are adequate 'checks and balances' on managerial behaviour (Vance, 1983).

We have chosen the Australian institutional setting to examine the issue of board and monitoring committee independence. In contrast to the U.S., where companies listed on the New York Stock Exchange are required to have an audit committee formed entirely of independent directors (Klein, 1998), the formation and composition of audit and compensation committees remain essentially unregulated in Australia. Accordingly, our measures of audit committee independence exhibit considerably greater variation than that found in related studies undertaken in the U.S. For example, Klein (2002) reports that only 1.4 per cent of directors in her sample of S&P 500 firm audit committees are insiders, while 79.6 per cent are outsiders and 19 per cent are affiliates.

Our research contributes to the corporate governance literature by responding to recent calls for empirical investigation of board committees (Gales and Kesner, 1994; Dalton *et al.*, 1998). Our examination of the relation between full board and both audit and compensation committee independence provides evidence of strong positive associations, and shows that the independence of monitoring committees tends to be higher than that of full boards of directors.

We examine the impact of other mechanisms that can be used to control agency conflicts on board and monitoring committee independence. Bathala and Rao (1995) hypothesize and find that firms choose an optimal board composition depending upon the other monitoring mechanisms employed. We extend their analysis to the composition of monitoring committees. Our results indicate that low management ownership and an absence of substantial shareholders are compensated for with greater board independence, while reduced monitoring by debt-holders when leverage is low is compensated for with increased audit committee independence.

Finally, we examine the impact of independence on board and committee effectiveness by reference to firm value. Agency theory suggests a positive relation between effective monitoring of management and firm value, due to reduced costs of dysfunctional behaviour (Jensen and Meckling, 1976). However, we do not find a significant association between either full board or monitoring committee independence and firm value.

THEORY AND HYPOTHESES

Board of Directors and Monitoring Committee Independence

Fama and Jensen (1983) outline the role of organizational mechanisms in controlling agency conflicts. They identify the board of directors as one of the most important of these organizational controls, and highlight the importance of board independence in relation to the ratification and monitoring of management

decisions. In particular, they stress that boards have the power to hire, fire, and compensate top-level managers and to ratify and monitor important decisions.

Fama (1980) and Fama and Jensen (1983) stress the importance of both inside (executive) and outside (non-executive) directors for effective boards, with the appropriate mix determining the board's effectiveness in monitoring management. Firms with boards of directors that are dominated by top management can suffer problems associated with collusion and transfer of stockholder wealth. Therefore, corporate boards generally include outside members who ratify decisions that involve serious agency problems and act as arbiters in disagreements among internal managers. Prior research into the determinants of board composition finds some support for the conjecture that board independence is particularly important in situations where the potential for agency problems is most severe (e.g., Baysinger and Butler, 1985; Pearce and Zahra, 1992). Fama and Jensen (1983, p. 315) assert that 'outside board members act as arbiters in disagreements among internal managers and carry out tasks that involve serious agency problems between internal managers and residual claimants, for example, setting executive compensation'.

For firms using a committee structure, much of this responsibility would rest with independent committee members. The independent monitoring function of committees is important where conflicts of interest arise, particularly those situations where executive directors are involved. A great deal of important processes and decisions occur at committee level (see Kesner, 1988; Bilimoria and Piderit, 1994; Daily, 1994, 1996; Ellstrand *et al.*, 1999). The two monitoring committees analysed in this study are the audit and compensation committees. We have chosen to analyse these two committees and not the nominations committee, because they have a distinct monitoring function that is related to management while the nominations committee is concerned with the board itself. Further, audit and compensation committees have legislative and institutional bases underlying their role, while the nominations committee has no such requirements.[3]

The primary function of the audit committee is to review management information and to meet regularly with internal and external auditors to review the financial statements and external reporting process, to review the audit process (both external and internal) and internal controls (Bosch, 1995; Klein, 1998). This information allows the committee to assess the extent to which the board fulfils its duties and liabilities. By supervising the audit process, additional assurance about the quality of the company's financial reporting can be attained. Audit committees can add to the independence of the audit process by providing internal auditors with a mechanism to approach the board without having to use senior management channels (Pease and McMillan, 1993), and can enhance the integrity of monitoring (Menon and Williams, 1994). Bosch (1995) also argues that audit committees reduce the likelihood that a strong management will unduly influence external auditors. With regard to their composition, Menon and Williams (1994, p. 125) argue that an audit committee having executive directors as members 'cannot be viewed as an objective monitor of management'.

[3] Thanks to an anonymous referee for pointing this out.

It is widely acknowledged that effective audit committees are those that oversee the financial integrity of the company and protect its shareholders' interests. Independence is essential to being effective in such an oversight role, giving committee members the ability to question management's actions or judgement (Verschoor, 1993; O'Malley, 1994; Scarbrough *et al.*, 1998). Indeed, this point has been recognized by committee members themselves. For instance, Verschoor (1993) cites a United States General Accounting Office survey in which the chairpersons of audit committees in banks identified the most important factor influencing the effectiveness of audit committee oversight as the independence of its constituents. Independent audit committees can reduce agency costs by minimizing the opportunistic selection of financial accounting policies, and by increasing the credibility and accuracy of financial reporting.

Compensation committees typically determine and review remuneration packages for senior company officers (Klein, 1998), taking into consideration the company's needs together with the interests of its shareholders and other stakeholders (Bosch, 1995). Remuneration packages awarded to directors and senior managers have long drawn shareholder and media attention (Pease and McMillan, 1993). In recent times there has been an increasing demand for greater accountability for remuneration, substantially contributing to the growth in adoption of these committees (Bosch, 1995). The determination of appropriate remuneration packages for, and the assessment of, the performance of senior executives are part of the central monitoring duties of directors (Kesner, 1988). By ensuring that executive remuneration packages are fair and equitable, independent compensation committees can reduce the agency costs that arise if executives are responsible for determining their own remuneration.

Therefore, for firms using a committee structure, much of the monitoring responsibility of the board is expected to rest with independent committee members. Indeed, monitoring committees of the board represent more focused monitoring when compared with the overall board, which is responsible for decision management as well as decision control (Fama and Jensen, 1983). We thus expect the independence of monitoring committees to be proportionately greater than that of full boards of directors.

Since committee members must be selected from those available on the full board of directors, a sparsity of independent directors to choose from will result in a less independent monitoring committee than might otherwise have been the case. Accordingly, a positive relation between the independence of the full board and that of its monitoring committees has been documented in prior overseas research into audit and nomination committees (see Bradbury, 1990; Menon and Williams, 1994; Vafeas, 1999).

Impact of Other Mechanisms Used to Control Agency Conflicts

While the agency literature recognizes the importance of independent boards of directors in relation to the monitoring of management decisions, this is only one of the mechanisms used to control agency conflicts. This literature suggests increased (a) managerial ownership of equity, (b) dividend payout and (c) leverage as devices

used to ensure that managers' interests are aligned with those of shareholders. Bathala and Rao (1995) hypothesize and find that U.S. firms choose an optimal board composition depending upon these other mechanisms employed by the firm to control agency conflicts. More specifically, these authors predict and find an inverse relationship between board independence and each of these other agency conflict controlling mechanisms. That is, the relationship appears to be predominantly one of substitutes rather than complements. Bathala and Rao argue (p. 62) that while it is expected that firms will make use of several of these mechanisms, marginal firm specific benefits and costs are expected to cause them to rely more on one type of mechanism than another. We extend their analysis to the composition of monitoring committees and propose that, for firms using a committee structure, monitoring committee independence is negatively related to the extent to which the firm employs other agency conflict-controlling mechanisms. The theoretical underpinnings for each of these are outlined below.

Jensen and Meckling (1976) assert that increasing managerial ownership of equity can mitigate agency conflicts. The higher the proportion of equity owned by managers, the greater the alignment between manager and shareholder interests. Indirect empirical support for this proposition can be found in McConnell and Servaes (1990) and Morck *et al.* (1988). Further, Weisbach (1988) finds that the fraction of outside directors is negatively correlated with stockholdings of top management. In relation to dividend payout and leverage, Jensen (1986) asserts that the payment of dividends and the contractual obligations associated with debt reduce the amount of discretionary funds available to management, thereby reducing their incentive to engage in non-optimal activities. Further, Grossman and Hart (1982) argue that increased debt causes managers to become more efficient in order to lessen the probability of bankruptcy, loss of control and loss of reputation. In relation to dividends, Easterbrook (1984) argues that the regular payment of dividends causes firms to go to the capital markets for investment funding. Scrutiny of firms accessing the capital markets acts as a deterrent to opportunistic behaviour by managers. Empirical evidence supports the proposition that increased debt and dividend payouts can mitigate agency conflicts (see Rozeff, 1982; Harris and Raviv, 1991).[4]

In addition to the agency conflict controlling mechanisms suggested by Bathala and Rao (1995), substantial shareholders have incentives to monitor management and serve as an additional control mechanism (Shleifer and Vishny, 1986; Jensen, 1993).[5]

[4] It is likely that decisions relating to dividend and debt policy are at least partly dependent upon board quality. Therefore, there is a potential simultaneity issue related to our testing of H1. Data constraints preclude us from utilizing two-stage least squares estimation to control for possible problems related to this simultaneity.

[5] A substantial shareholder is any person having at least 5 per cent holding in the voting shares (or a class of voting shares) of a company (Corporations Law). Substantial shareholders may also be referred to as blockholders. While the institutional investors represent a further potential monitor of managers, we do not analyse this group of substantial shareholders separately as we expect that only those institutional investors with substantial holdings will have incentives to actively monitor management, regardless of whether they are institutional investors.

In their survey of corporate governance, Shleifer and Vishny (1997) conclude that substantial shareholders achieve corporate governance by exercising their voting rights. These shareholders have both 'a general interest in profit maximization, and enough control over the assets of the firm to have their interests respected' (p. 754). The greater the extent of substantial shareholders on the board, the greater the amount of control that can be exercised. The large cash flow stake held by these shareholders provides an incentive to monitor incumbent management, since the expected return on holding a large block of shares exceeds the monitoring costs involved (Shleifer and Vishny, 1986). Therefore, boards with a greater representation of substantial shareholders are expected to achieve superior monitoring. Indeed, Bradbury (1990) finds that substantial shareholders are related to the existence of audit committees.

If full board and monitoring committee independence is related to the extent to which the firm employs other agency conflict-controlling mechanisms, we expect that the monitoring role of independent directors is less critical for firms with higher proportions of inside ownership and substantial shareholders, and higher dividend payout and leverage ratios. We test the hypothesis that:

H1: There is a negative relationship between the independence of boards of directors (and their monitoring committees) and the extent of (a) managerial ownership of equity, (b) dividend payout, (c) leverage, and (d) substantial shareholders on the board.

Independence and Firm Value

Prior research, predominantly in the U.K. and U.S.A., has tested for empirical links between overall board of director composition and firm performance (as opposed to value) measures. However, this line of research has met with only limited success, since some studies have found positive relationships, some have found negative ones, while others report no relationship at all (for a review of this literature see Zahra and Pearce, 1989; Finkelstein and Hambrick, 1995). Dalton *et al.* (1998) propose that these inconsistent results may be due to conducting research into the composition of the board at large, rather than at the committee level. However, a recent study of board committee composition in the U.S. found no evidence to support a prediction of a positive relationship between audit and compensation committee independence and firm performance (Klein, 1998).[6]

We propose that the more direct indicator of effective monitoring is firm value rather than performance.[7] This proposition is based on the tenets of agency theory,

[6] Klein's (1998) failure to find support for predicted relationships between the independence of audit committees and firm performance for U.S. companies may be the result of there being low variation in her audit committee composition variable. Companies listed on the New York Stock Exchange are required to have an audit committee formed entirely of independent directors.

[7] While performance and value are linked, firm value more directly captures predictions emanating from agency theory.

which proposes that dysfunctional behaviour reduces the value of the firm (Jensen and Meckling, 1976), and that one means by which the costs of such dysfunctional behaviour can be reduced is through monitoring of management actions. Therefore, agency theory suggests a positive relation between effective monitoring of management and firm value. In relation to monitoring committees, the independence of each committee member is expected to enhance monitoring effectiveness, thereby reducing agency costs and increasing firm value. We test the hypothesis that:

H2: There is a positive relationship between the independence of boards of directors (and their monitoring committees) and firm value.

ANALYSIS

We identified the top 200 firms listed on the Australian Stock Exchange in 1997. Large firms were selected on the basis that they are more likely to use a board committee structure, while smaller firms are more likely to operate using the full board. Some firms in the top 200 are unsuitable for the analysis. The various subcategories of firms excluded are detailed in Table 1. In particular, companies not having both audit and compensation committees are excluded. The final group of companies for analysis consists of 109 large Australian companies.

Some companies satisfy more than one criterion for exclusion. Trusts have unique characteristics which impact on their corporate governance practices. The trust manager and the trustee are jointly responsible for governance matters but have a fundamental separation of responsibilities and powers between them. Foreign companies are excluded because their financial statements are not typically prepared according to the normal disclosure requirements applicable to companies listed on the ASX.

Board of Director and Monitoring Committee Independence

We commence our analysis with an examination of full board and monitoring committee independence. Full board independence (BRDIND) is captured by the

TABLE 1

COMPANIES ANALYSED

Top 200 companies in 1997		200
Exclusions		
Don't have both committees	40	
Trusts	28	
Foreign companies	12	
Delistings/mergers/takeovers	5	
Other (not able to be traced or missing data for some variables)	6	91
Final group of companies for analysis		109

proportion of independent directors to total directors on the board. Individual directors are assessed in terms of their independence from management, with the definition of independence espoused by the Australian Investment Managers' Association (AIMA) being adopted.[8] Essentially, independent directors are non-executive directors who do not have a business or other relationship with the firm that could interfere with their ability to act independently. These data were hand collected, making the classification of directors a time-intensive process. However, the determination of director independence rather than mere executive status is an important component of this research. Non-executive directors are not necessarily independent of the company's executive management. Their independence can be impaired by virtue of their other relationships or business dealings with the company. This includes acting as a professional adviser to the firm.

The independence of each monitoring committee is measured in two ways: (a) the proportion of independent directors on the committee, and (b) the absence of the company's chief executive officer from the committee. AUD1 and COM1 are used to measure the proportion of independent directors on the audit and compensation committees respectively, while AUD2 and COM2 capture whether the CEO is a member of these committees.

The descriptive statistics shown in Panel A of Table 2 indicate that our sample firms' audit committees had a mean (median) size of 3.60 (3) members. Twenty-two firms included the CEO as a member of the audit committee. The proportion of independent directors ranges between zero and one, with a mean (median) of 0.6592 (0.6667). The mean (median) size of compensation committees was 3.8 (3). Interestingly, in thirty-three cases the company's CEO was a member of the committee, indicating some degree of influence over the remuneration process. The mean (median) proportion of compensation committee members who are independent directors is 0.609 (0.6667). The mean full board size of the sample companies is 8.21 with a median of 8. Boards ranged in size between four and sixteen members. Measures of mean and median proportions of independent directors indicate that boards tend to be equally split between independent and non-independent directors. However, this proportion ranges between 0 (no independent directors) and 0.9. As expected, monitoring committees tend to have a greater proportion of independent directors than the full board.

The additional descriptive analysis presented in Panel B indicates that thirty-one audit committees (28.4 per cent) were regarded as being wholly independent. Further, seventy-three companies (67 per cent) complied with an AIMA recommendation that only non-executive directors be members of this committee. Indeed, 105 of the committees (96.3 per cent) comprised a majority of non-executive directors, while seventy (64.2 per cent) comprised a majority of independent directors. These comparisons reveal the importance of making a distinction between non-executive and independent directors. The appointment of non-executives to boards

[8] The principles embodied within this definition appear to be consistent with those existing in other countries bearing an Anglo-Saxon corporate governance system.

TABLE 2

MONITORING COMMITTEE AND FULL BOARD INDEPENDENCE DESCRIPTIVE STATISTICS, CORRELATION COEFFICIENTS AND COMPLIANCE WITH GOVERNANCE RECOMMENDATIONS FOR 109 LARGE AUSTRALIAN COMPANIES

Panel A: Descriptive statistics

	Audit committee		Compensation committee		Full board	
	Committee size	Proportion independent	Committee size	Proportion independent	Board size	Proportion independent
n	109	109	109	109	109	109
Mean	3.60	0.6592	3.80	0.6090	8.21	0.5075
Median	3	0.6667	3	0.6667	8	0.5
SD	0.99	0.2736	1.89	0.3174	2.58	0.2110
Minimum	2	0	1	0	4	0
Maximum	7	1	11	1	16	0.9
Number of firms with CEO on committee		22		33		–

Panel B: Compliance with governance recommendations

	Audit committee		Compensation committee		Full board	
	Frequency	%	Frequency	%	Frequency	%
Wholly independent	31	28.4	30	27.5	0	0.0
Wholly non-executive	73	67.0	68	62.4	3	2.8
Majority independent	70	64.2	61	56.0	48	44.0
Majority non-executive	105	96.3	102	93.6	96	88.1
At least one-third independent[a]	–	–	–	–	87	79.8

Panel C: Pearson (Spearman) correlations

	BRDIND	AUD1	COM1	AUD2
AUD1	0.597** (0.587)**			
COM1	0.718** (0.743)**	0.601** (0.593)**		
AUD2	−0.014 (−0.018)	0.330** (0.340)**	0.066 (0.055)	
COM2	0.202* (0.202)*	0.099 (0.097)	0.378** (0.411)**	0.216* (0.216)*

[a] This was a recommendation forwarded by the Bosch Committee in relation to full boards only.
* two-tailed $p < 0.05$, ** two-tailed $p < 0.01$.
BRDIND = the ratio of independent directors to total directors on the board.
AUD1 = the ratio of independent directors to total directors on the audit committee.
COM1 = the ratio of independent directors to total directors on the compensation committee.
AUD2 = dichotomous variable coded 1 where the CEO is not a member of the audit committee, and 0 otherwise.
COM2 = dichotomous variable coded 1 where the CEO is not a member of the compensation committee, and 0 otherwise.

and monitoring committees cannot ensure total objectivity in the monitoring process. Whereas the AIMA's recommendation with respect to audit committees is for all members to be non-executive, its guidelines regarding compensation committees merely call for a majority of non-executives. One hundred and two (93.6 per cent) of the sample firms having a compensation committee conformed with this guideline, while sixty-eight firms (62.4 per cent) had established such committees with no executive members at all. Only sixty-one of the committees (56 per cent) were comprised of a majority of independent directors, with a mere thirty of those (27.5 per cent of all compensation committees) classified as wholly independent.

A key guideline espoused by the AIMA is that boards should constitute a majority of independent directors. However, only forty-eight (44 per cent) of sample firms complied with this guideline. A less onerous recommendation forwarded by the Bosch Committee was that boards be at least one-third independent. The sample's conformity with this criterion was in the order of 79.8 per cent (87 firms). Further, approximately 88.1 per cent of sample firms (96) had a majority of non-executives on the board.

Panel C of Table 2 shows bivariate correlations among our monitoring committee and full board independence variables. While the proportion of independent directors on each of the monitoring committees is significantly positively correlated with the proportion on the full board, the decision to include the CEO on the audit committee is not related to overall board independence. On the other hand, more independent boards tend not to include the CEO on the compensation committee. Our two measures of independence tend to be significantly positively correlated for each committee indicating that, where independence is seen to be important, this is often achieved by both a high proportion of independent directors and the absence of the CEO. For example, our two measures of compensation committee independence have a Pearson correlation coefficient of 0.378 ($p < 0.01$).

Empirical Model, Variable Measurement and Data Sources

Hypothesis 1 predicts negative relationships between both monitoring committee and full board independence and other mechanisms that can be used to control agency conflicts. Our tests of this hypothesis involve examining the impact of these other mechanisms on the independence of the (a) audit committee, (b) compensation committee and (c) full board. We control for the significant positive correlation between full board and monitoring committee independence documented above, as well as several other firm characteristics likely to be associated with independence. We use the following models to test H1:

$$AUD1_{it} = \beta_0 + \beta_1 MGOWN_{it} + \beta_2 PAYOUT_{it} + \beta_3 DEBT_{it} + \beta_4 SUBS_{it} + \beta_5 INDSEG_{it} + \beta_6 GEOSEG_{it} + \beta_7 GROWTH_{it} + \beta_8 PERF_{it} + \beta_9 SIZE_{it} + \beta_{10} BRDIND_{it} + \varepsilon_{it} \quad (1a)$$

$$COM1_{it} = \beta_0 + \beta_1 MGOWN_{it} + \beta_2 PAYOUT_{it} + \beta_3 DEBT_{it} + \beta_4 SUBS_{it} + \beta_5 INDSEG_{it} + \beta_6 GEOSEG_{it} + \beta_7 GROWTH_{it} + \beta_8 PERF_{it} + \beta_9 SIZE_{it} + \beta_{10} BRDIND_{it} + \varepsilon_{it} \quad (1b)$$

$$BRDIND_{it} = \beta_0 + \beta_1 MGOWN_{it} + \beta_2 PAYOUT_{it} + \beta_3 DEBT_{it} + \beta_4 SUBS_{it} + \beta_5 INDSEG_{it} + \beta_6 GEOSEG_{it} + \beta_7 GROWTH_{it} + \beta_8 PERF_{it} + \beta_9 SIZE_{it} + \beta_{10} COMIND_{it} + \varepsilon_{it} \quad (1c)$$

AUD1, COM1 and BRDIND are as previously defined.[9] COMIND is the average proportion of independent directors on the firm's two monitoring committees ((AUD1 + COM1) / 2). This variable proxies for the overall firm policy with respect to the independence of monitoring committees and overcomes potential multicollinearity problems associated with including both AUD1 and COM1 in equation (1c).[10]

MGOWN captures the proportion of equity, including options as well as ordinary shares, held by non-independent directors.[11] PAYOUT is measured as the ratio of ordinary dividends to earnings. Seven sample firms had a negative PAYOUT in 1997 due to reporting losses in that year. Including such data in their raw form would bias our results, since the continued payment of dividends in loss years remains an important alternative governance mechanism. We counter this potential bias by attributing a payout ratio of 100 per cent for each of these seven firms. DEBT captures leverage and is measured as long-term debt divided by the sum of long-term debt and the market value of ordinary equity. PAYOUT and DEBT are measured relative to industry medians for that year.[12] The impact of substantial shareholders (SUBS) is captured by the number of directors on the board representing a substantial shareholder.[13]

In addition to the variables used to test our hypotheses, our model includes several control variables that capture the firm characteristics most likely to be associated with board and monitoring committee independence. These control variables draw on the arguments identified in prior research into the determinants of full board independence and are measured as follows.[14] INDSEG and GEOSEG capture the extent of firm diversification,[15] and are operationalized as the number

[9] Results of sensitivity tests using our alternative measures of committee independence (AUD2 and COM2) are reported below.

[10] Sensitivity tests that replace COMIND with AUD1 and/or COM1 produce consistent results in terms of the sign and significance of the other independent variables.

[11] We refine the measure used by Bathala and Rao (1995) by (a) considering whether directors are non-independent rather than merely whether they are executive or non-executive directors, and (b) including options to purchase ordinary shares in this measure.

[12] The median payout ratio for the gold miners industry category is zero. We therefore use the industry mean rather than the industry median for the firms in this industry.

[13] The measurement of board independence does not include directors who are substantial shareholders. Indeed, the AIMA definition precludes such directors from the 'independent' classification.

[14] We control for the impact of industry effects by measuring certain variables relative to industry medians.

[15] Prior empirical research has found that as diversification increases, so does board independence (Baysinger and Butler, 1985; Hermalin and Weisbach, 1988). Diversification efforts aim to reduce or manage environmental uncertainty associated with current and future opportunities (Pearce and Zahra, 1992, p. 421).

of industry and geographical segments reported in notes to the financial statements. Growth options (GROWTH) are captured by the market-to-book ratio, calculated as the ratio of the market value of ordinary equity to the book value of ordinary equity.[16] Financial performance (PERF)[17] is captured by each firm's average earnings before interest and taxes (EBIT) to total assets ratio over the 1995 to 1997 period. We calculate a three-year average since this is expected to give a more accurate measure than using a single year observation. Single year measures of firm performance can be problematic if sample firms show an atypical performance result in that year. Likewise, SIZE is measured as the average total revenues earned between 1995 and 1997.[18] Total revenues are used since they are less likely to be impacted by the effectiveness of monitoring mechanisms, when compared with alternative measures of size such as firm value.[19] GROWTH, PERF and SIZE are all measured relative to industry medians for that year (ASX classifications).

Annual reports downloaded from the Connect 4 Annual Report Collection represent the major source of data for the study. Accounting data relevant to the determination of PAYOUT, DEBT, SIZE, GROWTH and PERF were hand collected from the financial statements, while directors'/chairpersons' reports, corporate governance statements, statutory information sections, segment reports and related party disclosures were studied to assess MGOWN, SUBS, INDSEG, GEOSEG and committee structure and independence. Industry median data were obtained from Aspect Financial Pty Ltd. Part of the assessment of director independence requires knowledge of whether each director was, directly or indirectly, a substantial shareholder of the company. While the identification of substantial shareholders was predominantly made in the annual reports, this information was verified by reference to AFR Shareholder Handbooks of Australian Listed Companies for the relevant time period.

Results

Table 3 shows descriptive statistics for our independent variables. While MGOWN ranges between zero and 0.997, it tends to be low, on average. Indeed, for ninety of

[16] Anderson *et al.* (1993) show that each firm's mix of corporate governance mechanisms is determined by the degree to which its value is made up by assets-in-place versus growth options.

[17] Baysinger and Butler (1985) find that firms with above average financial performance have higher percentages of outside directors than firms with below average performance. Further, Zahra and Pearce (1989) propose that the presence of outside directors enhances financial performance by (a) enabling the acquisition of timely data on environmental changes, (b) ensuring careful analyses of managerial proposals, (c) enhancing ability to respond effectively to the expectations of diverse interest groups, and (d) undertaking crucial control functions.

[18] Pearce and Zahra (1992) include size as a control variable, since it is empirically correlated with both board composition and company performance. A further justification for including size as a firm characteristic stems from the contention of Pincus *et al.* (1989) that economies of scale result in net monitoring benefits increasing with size.

[19] Our results are insensitive to using an alternative measure of SIZE, market value of equity.

TABLE 3

INDEPENDENT VARIABLE DESCRIPTIVE STATISTICS FOR 109 LARGE AUSTRALIAN COMPANIES

	MGOWN	PAYOUT	DEBT	SUBS	INDSEG	GEOSEG	SIZE	GROWTH	PERF
Mean	0.074	1.99	11.87	1.01	2.20	2.43	144.15	5.58	1.14
Median	0.004	1.39	1.51	0.00	2.00	2.00	18.69	1.64	0.96
SD	0.184	2.46	27.23	1.57	1.53	1.60	462.35	28.96	3.01
Minimum	0.000	0.00	0.00	0.00	1.00	1.00	0.01	0.26	–5.33
Maximum	0.997	19.30	131.11	9.00	9.00	8.00	3,507.31	303.14	25.78

PAYOUT = the dividend payout ratio, calculated as ordinary dividends divided by earnings (where earnings is calculated as operating profit before extraordinaries and after tax); relative to industry median dividend payout ratio. Negative payout ratios recoded as 100 per cent prior to scaling.
DEBT = the debt ratio, calculated as long-term debt divided by the sum of long-term debt and the market value of ordinary equity; relative to industry median debt ratio.
SUBS = the number of directors on the board who represent a substantial shareholder.
INDSEG = the number of reported industry segments.
GEOSEG = the number of reported geographic segments.
GROWTH = the market to book ratio, calculated as the ratio of the market value of ordinary equity to the book value of ordinary equity; relative to industry median market to book ratio.
PERF = previous financial performance, measured as the mean of (EBIT to total assets ratio between 1995 and 1997 relative to industry median EBIT to total assets ratio between 1995 and 1997).
SIZE = the mean of (total revenues between 1995 and 1997 relative to industry median total revenues between 1995 and 1997).
MGOWN = the proportion of equity (including options as well as ordinary shares) held by non-independent directors.

our 109 firms, equity ownership by non-independent directors comprises less than 5 per cent of total ordinary equity. Since the distribution of this variable is severely non-normal and no transformation satisfactorily improves its distribution, we use a dichotomous rather than continuous measure in our hypotheses tests. MGOWN_D is coded one where the proportion of equity, including options as well as ordinary shares, held by non-independent directors exceeds 5 per cent of issued ordinary shares and options, zero otherwise.[20]

Mean and median measures for PAYOUT and DEBT indicate higher than average dividends and leverage for our companies. Likewise, they are bigger and have more growth opportunities (indicated by SIZE and GROWTH) than their industry medians. On the other hand, financial performance (PERF) does not appear to be substantially different from industry medians. Many of our companies do not have any directors representing substantial shareholders, with a median of zero and a mean of only one per company (SUBS). Mean and median measures for INDSEG and GEOSEG indicate limited diversity, on average. However,

[20] While our 5 per cent cut-off is arbitrary, it seems reasonable to expect that director's equity holdings of less than this amount would be unlikely to reduce agency conflicts. Results of additional unreported tests using cut-offs of 2 per cent and 10 per cent indicate that our results are not sensitive to the cut-off level chosen.

minimums and maximums indicate considerable variation for all of our independent variables.[21]

Correlations between these independent variables are shown in Table 4. While there are several significant correlations between our independent variables, the majority of these are low enough to suggest that multicollinearity should not be a problem for our multivariate hypotheses tests.[22] MGOWN_D and SUBS are positively correlated ($r = 0.370$, $p < 0.001$) since firms with non-independent directors holding 5 per cent or more of ordinary equity are given non-zero values for both measures. However, we are confident that these variables are capturing different aspects of the alternative mechanisms used to control agency conflicts. In particular, MGOWN_D also captures those firms without substantial shareholders where combined non-independent director ownership of shares and options is greater than or equal to 5 per cent; while SUBS captures holdings of greater than 5 per cent that are held by both independent and non-independent directors and considers the *number* of substantial shareholders per firm. Significant correlations between our hypothesized variables and several control variables (particularly SIZE, PERF and GROWTH) reinforce the importance of controlling for these firm characteristics in our hypothesis tests.

Hypothesis 1 proposes negative relationships between board (committee) independence and other mechanisms used to control agency conflicts. Table 5 shows regression estimates in relation to the proportion of independent directors on audit and compensation committees as well as the full board. DEBT is negatively related to audit committee independence, regardless of whether this is measured as the proportion of independent directors or the absence of the CEO from this committee. That is, more independent audit committees are associated with lower leverage; indicating that when debt-holders have lower incentives to monitor the financial reporting and audit functions, the independence of committee level monitoring becomes more important. On the other hand, compensation committee independence is not associated with any of these other control mechanisms. Sensitivity tests using our alternative measures of committee independence (AUD2 and COM2) yield the same conclusions. For the full board, the proportion of management ownership (MGOWN_D) and the number of substantial shareholders (SUBS) are significantly negatively associated with independence. That is, a more independent board is used for monitoring when there is low management ownership and an absence of substantial shareholders. None of the firm characteristic control variables is significantly related to monitoring committee or full board independence.

[21] These descriptive statistics indicate that several of our independent variables are not normally distributed. However, transformations were not considered necessary, given that diagnostic tests on the distributions of the regression residuals show that the residuals are normally distributed.

[22] We have formally checked for multicollinearity using variance inflation factors (VIFs). Our highest VIF of 1.6 is well below the cut-off of 10 suggested by Lardaro (1993, p. 446) and Hair *et al.* (1998, p. 193).

TABLE 4

PEARSON (SPEARMAN) CORRELATIONS BETWEEN INDEPENDENT VARIABLES FOR 109 LARGE AUSTRALIAN COMPANIES

	MGOWN_D	PAYOUT	DEBT	SUBS	INDSEG	GEOSEG	GROWTH	PERF
PAYOUT	−0.133 −0.160							
DEBT	−0.080 0.083	0.234* 0.108						
SUBS	0.370** 0.448**	0.017 0.008	0.013 0.044					
INDSEG	0.018 −0.011	−0.022 −0.094	−0.116 0.072	0.007 −0.014				
GEOSEG	0.058 0.076	−0.106 −0.095	−0.023 −0.022	−0.120 −0.057	0.225* 0.283**			
GROWTH	0.216* 0.126	−0.023 −0.088	−0.056 −0.277**	0.187 0.097	−0.068 −0.141	0.053 0.044		
PERF	0.027 0.137	−0.123 −0.218*	−0.254** −0.343**	−0.066 −0.009	0.112 0.104	0.042 0.054	0.030 0.145	
SIZE	−0.128 −0.201*	0.200* 0.371**	0.410** 0.364**	−0.102 0.033	0.070 −0.062	0.090 0.067	−0.037 −0.157	−0.218* −0.358**

* two-tailed $p < 0.05$, ** two-tailed $p < 0.01$.

MGOWN_D = dichotomous variable coded 1 where the proportion of equity (including options as well as ordinary shares) held by non-independent directors exceeds 5 per cent, and 0 otherwise.

PAYOUT = the dividend payout ratio, calculated as ordinary dividends divided by earnings (where earnings is calculated as operating profit before extraordinaries and after tax); relative to industry median dividend payout ratio. Negative payout ratios recoded as 100 per cent prior to scaling.

DEBT = the debt ratio, calculated as long-term debt divided by the sum of long-term debt and the market value of ordinary equity, relative to industry median debt ratio.

SUBS = the number of directors on the board who represent a substantial shareholder.

INDSEG = the number of reported industry segments.

GEOSEG = the number of reported geographic segments.

GROWTH = the market to book ratio, calculated as the ratio of the market value of ordinary equity to the book value of ordinary equity, relative to industry median market to book ratio.

PERF = previous financial performance, measured as the mean of (EBIT to total assets ratio between 1995 and 1997 relative to industry median EBIT to total assets ratio between 1995 and 1997).

SIZE = the mean of (total revenues between 1995 and 1997 relative to industry median total revenues between 1995 and 1997).

TABLE 5

REGRESSION ESTIMATES OF MONITORING COMMITTEE AND FULL BOARD INDEPENDENCE ON OTHER AGENCY CONFLICT CONTROLLING MECHANISMS FOR 109 LARGE AUSTRALIAN COMPANIES (T-VALUES IN PARENTHESES)

Panel A: Dependent variable is audit committee independence (AUD1)

β_0 Constant	β_1 MGOWN_D	β_2 PAYOUT	β_3 DEBT	β_4 SUBS	β_5 INDSEG	β_6 GEOSEG	β_7 GROWTH	β_8 PERF	β_9 SIZE	β_{10} BRDIND	Adjusted R^2
Pred. sign	−	−	−	−	+	+	+	+	+	+	
0.197	−0.041	0.003	−0.002	0.005	0.014	0.025	−0.001	−0.006	0.001	0.762	
(2.119)*	(−0.645)	(0.370)	(−2.263)*	(0.307)	(0.997)	(1.821)	(−0.108)	(−0.863)	(1.399)	(6.014)**	0.374

Panel B: Dependent variable is compensation committee independence (COM1)

β_0 Constant	β_1 MGOWN_D	β_2 PAYOUT	β_3 DEBT	β_4 SUBS	β_5 INDSEG	β_6 GEOSEG	β_7 GROWTH	β_8 PERF	β_9 SIZE	β_{10} BRDIND	Adjusted R^2
Pred. sign	−	−	−	−	+	+	+	+	+	+	
−0.093	0.036	0.008	0.001	0.015	0.012	0.017	0.001	−0.004	0.001	1.161	
(−0.975)	(0.547)	(0.884)	(0.045)	(0.876)	(0.839)	(1.226)	(0.177)	(−0.468)	(1.107)	(8.882)**	0.504

Panel C: Dependent variable is full board independence (BRDIND)

β_0 Constant	β_1 MGOWN_D	β_2 PAYOUT	β_3 DEBT	β_4 SUBS	β_5 INDSEG	β_6 GEOSEG	β_7 GROWTH	β_8 PERF	β_9 SIZE	β_{10} COMIND	Adjusted R^2
Pred. sign	−	−	−	−	+	+	+	+	+	+	
0.293	−0.073	−0.001	0.001	−0.039	−0.005	−0.015	−0.001	0.003	−0.001	0.489	
(6.472)**	(−2.024)*	(−0.222)	(1.134)	(−4.323)**	(−0.574)	(−1.864)	(−0.281)	(0.819)	(−0.993)	(9.323)**	0.645

* two-tailed $p < 0.05$, ** two-tailed $p < 0.01$.
AUD1 = the ratio of independent directors to total directors on the audit committee.
COM1 = the ratio of independent directors to total directors on the compensation committee.
COMIND = the average proportion of independent directors on the firm's two monitoring committees ((AUD1 + COM1)/2).
BRDIND = the ratio of independent directors to total directors on the board.
MGOWN_D = dichotomous variable coded 1 where the proportion of equity (including options as well as ordinary shares) held by non-independent directors exceeds 5 per cent, and 0 otherwise.
PAYOUT = the dividend payout ratio, calculated as ordinary dividends divided by earnings (where earnings is calculated as operating profit before extraordinaries and after tax), relative to industry median dividend payout ratio. Negative payout ratios recoded as 100 per cent prior to scaling.
DEBT = the debt ratio, calculated as long term debt divided by the sum of long-term debt and the market value of ordinary equity, relative to industry median debt ratio.
SUBS = the number of directors on the board who represent a substantial shareholder.
INDSEG = the number of reported industry segments.
GEOSEG = the number of reported geographic segments.
GROWTH = the market to book ratio, calculated as the ratio of the market value of ordinary equity to the book value of ordinary equity, relative to industry median market to book ratio.
PERF = previous financial performance, measured as the mean of (EBIT to total assets ratio between 1995 and 1997 relative to industry median EBIT to total assets ratio between 1995 and 1997).
SIZE = the mean of (total revenues between 1995 and 1997 relative to industry median total revenues between 1995 and 1997).

Impact on Firm Value

In this section of our analysis, we examine the impact of board and monitoring committee independence on monitoring effectiveness by reference to firm value. Hypothesis 2 predicts a positive relationship between firm value and monitoring committee (board) independence. The design of empirical tests for this hypothesis is difficult to the extent that many factors other than effective monitoring are expected to impact firm value. Ideally, we would perform our analysis on a firm-by-firm basis and examine the market value of each firm while adjusting the level of monitoring committee independence. Of course, such a test is not possible when using archival data. A second option would be to observe the change in market value for firms adjusting the level of monitoring committee independence between years. Unfortunately, only a handful of our firms made such a change in 1997, rendering statistical testing impossible. Therefore, we employ a cross-sectional research design, and acknowledge the limitations associated with such a design.[23] We reduce some of the problems associated with using cross-sectional tests by controlling for firm size and measuring the independence of the board and monitoring committees relative to industry medians. Effectively, we assume that industry median independence proportions are optimal, and assess the impact of deviations from these optimal proportions of independent directors.

We use the following models to test whether monitoring committee and board independence are positively related to firm value[24]:

$$MVE_{it} = \beta_0 + \beta_1 AUD1/INDUSTRY_{it} + \beta_2 SIZE_{it} + \varepsilon_{it} \quad (2a)$$

$$MVE_{it} = \beta_0 + \beta_1 COM1/INDUSTRY_{it} + \beta_2 SIZE_{it} + \varepsilon_{it} \quad (2b)$$

$$MVE_{it} = \beta_0 + \beta_1 BRDIND/INDUSTRY_{it} + \beta_2 SIZE_{it} + \varepsilon_{it} \quad (2c)$$

The Securities Industry Research Centre of Asia-Pacific (SIRCA) database was used to obtain share price data relevant to the determination of the market values of shareholder equity. Market value of equity (MVE) is calculated as the number of shares outstanding at balance date by price per share on that date. While our companies for analysis are drawn from the largest 200 listed Australian companies, some of these are quite small by international standards. Market values range between $93m and $38,068m, indicating substantial variation in firm size within the sample.

Table 6 shows regression results for equations (2a) to (2c). The results indicate that neither board nor monitoring committee independence is significantly associated

[23] Thanks to David Emanuel for pointing this out and discussions about possible solutions.

[24] Ohlson (1995) proposes a model in which market values can be fully explained by book values and future abnormal earnings. Empirical tests employing this model generally proxy for future abnormal earnings with either annual earnings or abnormal earnings for the current year. However, the inclusion of book values and earnings as control variables in our model would eliminate the effect that we are attempting to isolate, since we expect that the outcomes of effective monitoring will manifest in both book value and earnings. On the other hand, our measure of firm size, average total revenues over the three years 1995 to 1997, is not expected to be affected by the effectiveness of monitoring mechanisms.

TABLE 6

REGRESSION ESTIMATES OF FIRM VALUE (MVE) ON MONITORING COMMITTEE AND BOARD INDEPENDENCE RELATIVE TO INDUSTRY AVERAGES FOR 109 LARGE AUSTRALIAN COMPANIES (T-VALUES IN PARENTHESES)

Panel A: Audit committee

β_0 Constant	β_1 AUD1/INDUSTRY +	β_2 SIZE +	Adjusted R^2
5.260	0.221	0.744	0.614
(4.32)**	(1.30)	(12.49)**	

Panel B: Compensation committee

β_0 Constant	β_1 COM1/INDUSTRY +	β_2 SIZE +	Adjusted R^2
5.294	0.099	0.748	0.610
(4.31)**	(0.82)	(12.51)**	

Panel C: Full board

β_0 Constant	β_1 BRDIND/INDUSTRY +	β_2 SIZE +	Adjusted R^2
5.070	0.192	0.754	0.613
(4.07)**	(1.22)	(12.61)**	

* two-tailed $p < 0.05$, ** two-tailed $p < 0.01$.
MVE = the natural log of the market value of ordinary equity.
AUD1/INDUSTRY = proportion of independent directors on the audit committee relative to industry average proportion of independent directors on the compensation committee.
COM1/INDUSTRY = proportion of independent directors on the compensation committee relative to industry average proportion of independent directors on the compensation committee.
BRDIND/INDUSTRY = proportion of independent directors on the full board relative to industry average proportion of independent directors on the full board.
SIZE = the natural log of mean total revenues between 1995 and 1997.

with firm value. The results reported in Table 6 are after log transformations of both MVE and SIZE. These transformations were necessary, since positive skewness in these variables causes the regression residuals to be non-normal, and this is corrected by the log transformations.[25]

To test the robustness of our results to possible scale effects, we estimate an alternate specification of equations (2a) to (2c). Barth and Clinch (1999), in their

[25] To check the sensitivity of our results to these transformations, we re-ran them with untransformed data and used White's (1980) standard errors to limit problems associated with heteroskedasticity (see Barth and Kallapur, 1996). Our results are insensitive to the transformations.

examination of scale effects on inferences obtained from capital markets-based accounting research, suggest researchers need to be careful to ensure their findings are not attributable to scale. Our alternative specification involved using the ratio of MVE to SIZE as our dependent variable and excluding SIZE from the right-hand-side of our model. Our results are insensitive to this alternative specification. That is, full board and monitoring committee independence are not significantly associated with market value. Overall, the results of these tests complement those of Klein (1998) in relation to U.S. audit and compensation committees.

CONCLUSIONS

This article examines full board and monitoring committee independence, the impact of other mechanisms used to control agency conflicts on that independence, and the impact of independence on firm value. We document a strong positive association between the proportion of independent directors on the full board and its audit and compensation committees. Indicative of the more focused monitoring function of these committees, both audit and compensation committees tend to have a greater proportion of independent directors than the full board. Further, we find that greater full board independence is associated with low management ownership and an absence of substantial shareholders, while greater audit committee independence is associated with reduced monitoring by debt-holders when leverage is low. Low levels of these other monitoring mechanisms appear to be compensated for with higher levels of board and audit committee independence. However, none of these alternative agency conflict-controlling mechanisms is associated with compensation committee independence.

We are unable to provide evidence that firm value is enhanced through stronger monitoring committee or full board independence. However, our results may be due to problems associated with the use of cross-sectional tests. While agency theory predicts that more effective monitoring will result in higher firm value at the margin, other determinants of firm value are likely to overwhelm this effect when differences in market value between firms are considered. A further limitation of the article relates to the generalizability of results. Given our focus on boards with monitoring committees, and the greater propensity for boards of larger firms to use these committees, our sample is drawn from the largest 200 Australian firms. Therefore, our results may not be generalizable to smaller firms using similar committee structures or to firms that do not have both audit and compensation committees.

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PAUL ROSENFIELD

Presenting Discounted Future Cash Receipts and Payments in Financial Statements

This article is about the commonly asserted view that present value, the discounted amount of future cash receipts and payments, is an attribute of assets and that it ideally should replace acquisition cost as the attribute of assets to present in financial statements. The view is based on faulty extrapolation from economics and the study of finance. Use of present value in connection with the preparation of financial statements does not contribute to performing their basic function, which is to report relevant real world conditions as they exist and existed and relevant financial effects of relevant real world events as they occurred. The view turns discounting into a magical process, it reverses the chronological order of cause and effect, and it unjustifiably substitutes the financial effects of supposed future events for the financial effects of historical events as the raw material of financial statements. The future does not yet exist and such financial events have not yet occurred; the present condition therefore can in no way depend on them. The discounted amount of future cash receipts and payments is not an attribute of assets and it should therefore not replace acquisition cost as the attribute of assets to present in financial statements.

Key words: Assets; Discounted clash flow; Financial statements; Net present value; Valuation.

A blue-ribbon committee of the American Accounting Association stated that 'the . . . ideal basis of valuation [is] the present value of . . . future cash flows' (1991, p. 93). A blue-ribbon committee of the AICPA made the same kind of statement: 'if one could reduce the future cash flows to a single number at various times through an appropriate discounting process, earnings for a period could be determined by comparing changes in present value' (1973, p. 32).

Individuals have made equivalent statements, for example, Revsine: 'the discounted present value [of an asset is] the theoretically best measure[1] of asset worth' (1973, p. 82) and Staubus: '*the most useful meaning of asset and liability*

[1] But '[a] discounted value [is] not [a] measurement . . . [It has] no present empirical referent' (Sterling, 1979, p. 126).

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quantities is the item's incremental effect upon the net discounted amount of the entity's future cash flows . . . discounted future cash flow is a *relevant attribute* of any asset' (1977, p. 140).

Never is any demonstration of the validity of that view attempted: it is treated in the literature as a self-evident truth.

The idea is so ingrained in the minds of academic accountants that the first time this article was submitted (to another academic journal), the editor rejected it apparently for the simple reason that it challenges the idea. In his letter of rejection, he said: 'I doubt that you will find many people who support your views on present values. . . . I do not believe [your position] can be supported in any substantive way.'

The current condition of the reporting entity as to an asset is thus said ideally to be the *present value* of the asset, defined as the discounted amount of future cash receipts and payments supposedly obtainable from it. (The current condition of the reporting entity as to a liability would ideally be the discounted amount of the net cash payments it supposedly will cause.) Further, the American Institute of Certified Public Accountants (AICPA, 1973, p. 41) and the Financial Accounting Standards Board (FASB, 1976, par. 433–9) stated that present value should be considered as a measurable attribute of assets of reporting entities possibly alternative to acquisition cost for use in financial statements. (The AICPA and the FASB stated that current buying prices and current selling prices should also be considered as such possible alternative attributes of assets for use in financial statements. The merits of using them in financial statements are discussed in the literature, especially, for example, by Edwards and Bell (1961), by Revsine (1973), by Chambers (1966), by Sterling (1979), and in the forthcoming book by the author, but are not considered here.)

Three questions emerge whose answers should lead to a conclusion about the validity of this common view stated in the financial reporting literature:

(1) Does present value exist as a condition in the real world? (Here, 'real world' is intended to mean conditions and events involving the reporting entity apart from any person thinking about them.)

If not, the amount violates the following criterion, which is the representational part of the FASB's concept of 'representational faithfulness' (1980, par. 63). What follows is my understanding of that part of the concept—the FASB did not define it separately:

Data in the line items of financial statements should represent external phenomena—conditions that exist or existed and the financial effects of events that occurred external to the statements and their underlying documentation—to be useful to the users of the statements, just as data in maps should represent territories external to the maps to be useful to travellers, generals and other users of maps.[2]

[2] This is compatible with the following concept: '*Representativeness* . . . the businessman is engaged in the manipulation of real events, real things and real relationships, and symbols are only useful to him if they represent these realities' (Chambers, 1969, pp. 76, 77).

(2) If so, is it a relevant real world condition?
(3) If so, is it the best relevant real world condition to measure and present in financial statements?

The approach is to inquire about the answers to those questions by seeing what affirmative responses to them would require, and thereby to form a conclusion about the soundness of the view that the present value of future cash flows is the ideal basis for the measurement of assets.

Not only is present value recommended to be the attribute in concept to replace acquisition cost in general in financial statements, but it is widely used in current requirements and practices. FASB Statement of Concepts, SFAC 7, *Using Cash Flow Information and Present Value in Accounting Measurements*, states in its Highlights that 'accountants quite often must use estimated future cash flows as a basis for measuring an asset or a liability'. The analysis and conclusions in this article equally apply to these uses of the concept of present value.

(The inquiry is confined primarily to the merits of the use of the present value in concept in connection with the *preparation* of financial statements. A following section, on 'The Parentage of the Concept', discusses some uses of the concept in other arenas, such as economics and management, whose soundness is not evaluated here, though its use in several of those arenas appears sound. Also, the users of financial statements may be aided by the concept of present value in connection with their *use* of financial statements and other information in making economic decisions.)

THE REAL WORLD EXISTENCE OF PRESENT VALUE

The present value of supposed future cash receipts and payments is said to be the ideal basis of valuation of assets. The term 'ideal' is not intended to mean that present value does not exist in the world outside people's thoughts. It is intended to mean that present value exists in the world outside people's thoughts and is the best attribute to use, but that it is difficult or impossible to measure directly. The main stated reasons it is difficult or impossible to measure directly are:

- The inputs to the cash receipts and payments interact: 'What part of the firm's receipts are earned by the office typewriter?' (Baxter, 1966, p. 9) making assignment of the cash receipts and payments to the inputs arbitrary.
- It is hard to know future events.
- It is hard to specify the discount rate to use.

However, some minimize the latter problem, for example, the AICPA (quoted above) a portion of whose 1973 report refers without discussion merely to 'an appropriate discounting process'. Also, Staubus stated without elaboration that 'there are several possible sources of discount rates ... all [of which] are likely to have useful applications in the measurement of [assets and liabilities] by discounting future cash movements' (1961, p. 35). In fact, such specification is impossible:

> there are . . . as many . . . discounted values as there are participants in the market. . . . The discount rate is personal to each individual decision maker. (Sterling, 1979, pp. 132, 138)

> Subjective value is a personal evaluation . . . the receipts expected by a person discounted at a rate of interest which that person expects to be the appropriate rate. (Bedford, 1965, pp. 25, 28; this quote is also used below)

If an attribute that exists in the real world is difficult or impossible to measure directly, it must be measured indirectly, for example, by surrogates, if at all. But surrogates do not solve its lack of existence in the real world:

> Surrogates are an appropriate response to lack of data, but *not* to a lack of theory . . . ease of calculation alone will not usually be a sufficient defense of an approximation . . . The reader is reminded of the old anecdote about the gentleman who dropped his watch when returning home at night from the tavern (the light being poor where he dropped his watch, he proceeded to the next street light before searching for it). (Thomas, 1969, pp. 12, 21)

In question (1), above, this article addresses the first issue, whether present value even exists in the real world.

THE PARENTAGE OF THE CONCEPT

> Present value is one of the foundations of economics and corporate finance, and the computation of present value is part of most modern asset-pricing models.
>
> —FASB (2000, par. 19)

The parents of the concept of present value were economics and management.

Economics was the father of the concept:

> Accounting is . . . strongly rooted in economics. (Paton and Littleton, 1940, p. 13)

> When accountants initially received academic training, it was in the area of economics. Understandably, as their teachers had obtained an economics degree, accountants tended to follow methods of economics and attempted to develop accounting income concepts accordingly. (Stewart, 1989, p. 111)

Both economics and financial reporting deal with economic resources. Further, they both have concepts called 'income', and an assumption has been made, without demonstration of its soundness, that the concepts should refer to much the same thing. The AICPA stated that:

> With perfect knowledge, economic and accounting earnings as measures of [improvement in wellbeing] would be readily determinable and would be identical. With such knowledge, earnings for a period would be the change in the present value of future cash receipts and payments, discounted at an appropriate rate. (1973, p. 22)

Individuals have made equivalent statements:

> Economic income is the ideal indicator of enterprise performance, because it reflects current cash flows and changes in future cash flows. (Carsberg, 1982, p. 70)

> [I]t is possible to reconstruct from the literature a justification for the dissemination of replacement cost reports to investors. This justification is based on the assumption

> that replacement cost income is a surrogate for economic income.[3] (Revsine, 1973, p. 93)

Management was the mother of the concept. Finance is a vital part of management: At least since Irving Fisher wrote, in 1906, that 'the value of any capital-good, either of wealth or of property-rights, assuming that all future income is foreknown[4] is the discounted value of that income' (Fisher, 1906, p. 223).

> [T]he present value concept of securities values has been recognized by students of finance. (Staubus, 1971, p. 48)

Management also involves choices in other areas, for example, the following: 'The times and amounts of future cash flows are the principals for some managerial decisions involving an asset, such as the sell-or-hold decision' (Staubus, 1971, p. 48). Management may acquire resources if the present values management believes the resources involved exceed their acquisition costs by more than such excesses in opportunities to acquire other resources.

Both economics and management involve a variety of decisions concerning events the decision makers believe will occur in the future.

Edwards and Bell noted that, 'economists have approached [income measurement] with essentially subjective concepts derived from expectations concerning future events' (1961, p. viii). Economists imagine policy choices, predict the outcome of each, and advise policy makers on which policy to choose to attempt to obtain the best results or the least bad results.

Management of finances, among other things, involves pricing in possible future transactions. The concept of present value informs investors, for example, concerning contemplated transactions—such as in capital budgeting decisions or contemplated purchases of fixed income securities—about the amount that should be spent in exchange for an expected or promised series of repayments in order to obtain an expected or promised given overall rate of return, or about the overall rate of return that would be involved in paying a given amount for a given expected or promised series of repayments: 'net present value is the common criterion for choice among options' (Chambers, 1989, p. 15). Management also involves a variety of additional decisions concerning supposed future events and present values, for one example, personnel decisions.

Neither economics nor management is concerned with reporting financial effects of real world events (real world conditions related to money as they exist and existed and changes in those conditions as they occurred), to which the preparation of financial statements should be confined:

[3] As discussed below in the text, economic income occurs only in people's minds, and can be anything people think. Replacement cost income can be defined so as to occur in the world outside people's minds. One cannot therefore be a surrogate for the other, and the assumption is not justified.

[4] As discussed below in the text, nothing about the future can be known, indeed the future does not even exist at present. Because Fisher's statement includes a counterfactual—fictional—assumption, it is not helpful for a real world activity such as financial reporting. Fisher's words are nevertheless regularly referred to by writers on financial reporting.

> [T]he economist is concerned with what [people] think; the accountant is concerned with measuring the results of what [people] have done. (Goldberg, 1965, p. 283)

> [The] perspectives [of financial reporting and financial analysis] are diametrically opposed ... Because assets and liabilities are both the result of *past* transactions and events, so is the accounting measure of net worth. Financial analysis, on the other hand, assesses, estimates, and gauges value solely in terms of expectations of the *future*. (Association for Investment Management and Research, 1993, p. 17)

Because economics and management involve choices that have supposed future consequences while financial statements involve reporting on the financial effects of past events (which are relevant to such choices), the parentage of the concept of present value should by itself raise doubts as to whether it refers to an existing real world condition, question (1) under consideration in this article. The parentage of the concept does not, however, by itself conclusively answer question (1). It is true that financial reporting theorists borrowed the concept of present value without consideration of its suitability in the new setting of financial reporting. Chambers commented:

> Awareness of the necessity of preparing accounting statements which shall be relevant to the future is not lacking. But the end is not achieved by simply borrowing economic concepts which have an independent function in the making of choices different from and complementary to the results of a well designed accounting system. (1966, p. 352)

However, they borrowed it in good faith assuming that it is serviceable there. We cannot simply discard that assumption without evaluating it.

THE FUTURE

> [The substance of a] net present value is a figment, a compound of imagined future events or sequences of events, and discounting factors.
>
> —Chambers (1989, p. 15)

The concept of present value involves the concept of the future, by incorporating future cash receipts and payments. That has not been explored by those who hold that present value is the ideal basis of measurement of assets for financial statements. To evaluate that view, the concept of the future and its effect on the view require exploration.

The future is a concept about moments in time and events that have not yet occurred. (The present is the moment in time during which events occur. The past is prior moments in time during which events occurred during what was then the present.)

We financial reporters often state that the future is uncertain and that such uncertainty hobbles the design of financial statements: 'measuring progress reliably involves determining whether uncertainty about future cash flows has been reduced to an acceptable level' (FASB, 1984, par. 49). Some observers state that such uncertainty should be ignored initially to study issues in the design of financial statements, for example:

> [T]he concept of earnings, given certainty, is useful as an abstraction. (AICPA, 1973, p. 32)
>
> [T]he basic nature of the periodic income determination problem may best be studied by eliminating the most disturbing factor, i.e., uncertainty. (Storey, 1960, p. 449)

But it is not the future that is uncertain; it is people who are uncertain, about what events might occur later.

However, it is worse than that for people. Some financial reporters say we can know the future:

> The normative investor decision model developed [earlier] requires information about future dividend payments. (Revsine, 1973, p. 118)
>
> [T]he known future cash receipts . . . and the known future cash disbursements.[5] Future cash inflows from customers are rights provided for in the contract of sale.[6] (Staubus, 1961, p. 58)

But no one can know the future and there is no such thing as information about the future:

> Accountants have long held the belief that our reporting problems would be solved if we knew the future . . . People will continue to yearn for future knowledge . . . Accountants may be able to provide them with some sympathy, but we cannot provide them with future knowledge. (Sterling, 1979, pp. 26, 130)
>
> [A]ll information is about the past. (Devine, 1985a, Vol. I, p. 25)
>
> We are here and it is now. Further than that all human knowledge is moonshine. (Mencken, quoted in Byrne, 1988, p. 109)

Gamblers would nevertheless love to have information about the future. Most of the rest of us prefer to do without it (especially information giving the date and cause of our death); life would not be very exciting otherwise.

What is even worse, except as a useful concept in people's imaginations[7] the future does not exist at present:

> [The] future does not yet exist. (Thomas, 1974, p. 75)
>
> [The argument] that one cannot measure future phenomena . . . may take the form that measurement is not possible when the subject does not . . . exist. (Vatter, 1971, p. 115)

[5] Staubus apparently was ambivalent about this. He also stated: 'The current value approach requires that the "known" future cash movements be discounted to the measurement date . . . When he is accounting for monetary assets and equities, the accountant usually "knows" the future cash movements that will be connected with the item' (1961, pp. 34, 58).

The inverted commas around *known* and *knows* presumably indicate his doubt that the future can be known. In each case, the observer was referring to known *currently promised* future cash receipts and payments. The promises may not be fulfilled. Regardless, current promises are not future events. (Also, some current value approaches, such as current selling price reporting, do not involve future cash movements or discounting.)

[6] Contracts of sale in fact merely provide promises and therefore prospects of future cash receipts or payments.

[7] And perhaps in the mind of God. That possibility is ignored here.

> [I]magination . . . has been defined by Jean-Paul Sartre as the ability to think of what is not. Human beings are the only animals who have the capacity to envisage something that . . . does not yet exist but which is merely possible.[8] (Armstrong, 1994, p. 223)

We financial reporters would do well to distinguish the fancies of our imaginations from the conditions that exist and existed and the financial effects of events that have occurred in the world around us, which should be the only subjects of financial statements.

What is worst, the future never occurs—comes into existence—as such. Time always comes into existence as the present:

> TOMORROW IS ANOTHER DAY. Not true. Today is another day. We have no idea what tomorrow is going to be. It might turn out to be another day but we can't be sure. If it happens, I'll be the first to say so. But you know what? By that time, it'll be today again. (Carlin, 1997, p. 136)

Though a common expression is, 'when the future becomes the present' (Sterling, 1982, p. 55) the imagined future does not become the present. The present ('the moving finger') moves:

> The Moving Finger writes; and having writ,
> Moves on; nor all your Piety nor Wit
> Shall lure it back to cancel half a Line
> Nor all your Tears wash out a Word of it.
> —Omar Khayyám, *Rubáiyát*

People can think about events that might occur later: 'an imagined future' (Chambers, 1989, p. 17), but if events do occur later[9] they will be present events in what is then the present, and after that they will be past events. Imagined events—thoughts about events—occur in the mind. Real events—events that occur outside the mind (other than having a thought, which is a real event)—occur outside the mind. Imagined events do not become real events by some magical process. In financial reporting, real events occur only outside the mind and outside the reports, in the financial reporting territory, not in the minds of the issuers of the reports or in the reports, the financial reporting map. There are no future events, except in imagination and science fiction, for example: 'In 2200, the world again began to grow cold' (Silverberg, 1980, p. 22).

Nevertheless, it has been said that: 'Future events . . . is a fundamental issue [in the design of financial statements] . . . since virtually every accrual and deferral

[8] Perhaps other animals do have that capacity. Our household pets, for example, may not be ruled solely by instinct and anticipate nothing. Consider a dog playing frisbee.

[9] We people have no guarantee even that time itself will continue for us. Consider the ever-present hazards to our home planet, for example, the possibility (likelihood?) of nuclear terrorism:

> Harvard . . . Prof. Graham Allison . . . writes . . . that it is only a matter of time before a terrorist detonates a [nuclear] bomb in America . . . Six known [nuclear] thefts in Russia have been intercepted abroad. Once they have the material, terrorists have the bomb. It takes only enough enriched uranium or plutonium to fill a soft-drink can. (Since the U.S. cannot prevent tons of narcotics from getting in, the best place to hide it would be in a bale of marijuana.) (Rosenthal, 1995, p. A31)

contains either an explicit or implicit assumption about the occurrence or outcome of future events' (Johnson, 1994, p. 6). The view that there are future events is so embedded in the minds of most of us financial reporters that a Conference of Standard Setting Bodies was held in London in November 1993 under the auspices of the International Accounting Standards Committee to discuss the role of future events in financial statements (Johnson, 1994, p. 6), and Beaver published an article on the 'Problems and Paradoxes in the Financial Reporting of Future Events' (Beaver, 1991).

Because the future does not exist at present except in people's minds but the current condition does exist and the past did occur, the current condition and the past can in no way depend on the future. Barton and Bedford correctly referred to the subjective nature of present value, that it resides solely in the mind of the subject, the person, considering it:

> Present values are subjective and are in the eye of the decision maker. (Barton, 1974, p. 678)
>
> Subjective value is a personal evaluation ... the receipts expected by a person discounted at a rate of interest which that person expects to be the appropriate rate. (Bedford, 1965, pp. 25, 28)

HISTORICAL REPORT[10]

As we financial reporters commonly state and as the AICPA and the FASB stated, financial statements are supposed to be historical:

> [T]he information [financial statements] contain describes the past[11] while decision making is oriented toward the future. (AICPA, 1970, par. 37)
>
> [A] financial statement ... displays either financial position of an entity at a [current] moment in time or one or more kinds of changes in financial position of the entity during a [past] period of time ... financial statements ... are historical. (FASB, 1978, par. 21; 1984, par. 5)

For financial statements to be historical, they should report the financial effects of events that occurred during the reporting period and the cumulative financial effects of the events that occurred from the inception of the reporting entity to the reporting date. They should not present fiction. In particular, they should not present the financial effects of events that have not occurred, either because they might occur in the future or because they might have occurred in the past but did not. (Parts of financial reports other than the financial statements may present material to help the users in contemplating such supposed financial events.)

However, we financial reporters find those restrictions too binding and we violate them. We are in effect told we need not know anything about the past or the present (other than perhaps the current cash balance). We are told to present

[10] This expression is redundant, because all reports are historical; the expression is nevertheless used here because it is in common usage and for emphasis.

[11] It also describes the present.

the financial effects of supposed future events, and we thus are told to violate the restriction of financial statements to historical reports.

In fact, based on the concept of present value, we present the opposite of historical reports. Rather than presenting reports whose raw material is confined to the financial effects of past events, we present reports the raw material of which is virtually confined to the financial effects of supposed future events.

EVIDENCE OF THE EFFECTS OF FUTURE EVENTS

Some financial reporters say that evidence of the financial effects of supposed future events should be sought by looking for surrogate measures of them:

> [T]he significance of assets and liabilities lies in the future . . . They can never be measured with absolute certainty. Surrogate measures must be found, and therein lies the essential problem of accounting. (Skinner, 1987, p. 635)

That seems at best circuitous: to know something about the past and the present, the future must be known; to know that future, something else about the present must be known. Further, a surrogate measure is a practical device to measure an existing attribute that is difficult or impossible to measure directly. Surrogate measures of attributes of future events do not exist, because future events do not exist.

Others say such evidence may be obtained simply by thinking about the future, by forming predictions—usually called euphemisms by us financial reporters because we do not like to admit we are using predictions in preparing financial statements: *estimates*, *expectations*[12] (a correspondent said that 'expectations are . . . the product of weighing up fuzzy feelings about fuzzy things'), or *assessments*. They are virtually never called *predictions*.[13] Four major professional organizations made unsupported statements about such an evidentiary process:

- FASB: 'Accrual is . . . the accounting process of recognizing assets or liabilities and the related . . . revenues, expenses, gains, or losses for amounts *expected* to be received or paid, usually in cash, in the future' (1985, par. 141, emphasis added).
- AICPA: 'Financial statements should include an explanation that the preparation of financial statements in conformity with GAAP requires the use of management's *estimates*' (1994, par. 11, emphasis added).
- American Accounting Association: '[To] faithfully represent [the] resources and obligations [of an enterprise] . . . it will often be necessary to *estimate* the outcome of future transactions and events' (1991, p. 89, emphasis added).

[12] The term 'expectancy' is sometimes used in a sense that differs from the sense of *expectations* as thoughts, such as in the expression 'life expectancy'. In that sense, it refers to a scientific probability, not the thought of an individual.

[13] I once broke the code at a meeting of the AICPA Accounting Standards Executive Committee and referred to a prediction as a *prediction* rather than as an *estimate*. I was almost thrown out of the room. Also, Tom R., a financial analyst, warned me to call analysts' predictions *estimates*, not *predictions*, because analysts don't like to be thought of as 'examining tea leaves'. When I pressed him, he acknowledged that they predict.

- AIMR: 'It is self-evident[14] that reporting on the past always requires the use of *estimates* and other *assessments* of future events' (1993, p. 18, emphasis added).

Many individuals make the same kinds of unsupported statements, for example:

> [T]he essential characteristic of an asset . . . is an *expectation*[15] . . . measurement can rest upon . . . an *estimate* involving the future such as that of an asset's economic life. (Skinner, 1987, pp. 633, 664, emphasis added)
>
> The need to *estimate* and project future events is not unique to pensions. Accounting unavoidably involves many *estimates*. (Lucas and Hollowell, 1981, p. 63, emphasis added)
>
> [T]he *estimation* of future events cannot be avoided. It may be reflected in an arbitrary assumption or treated implicitly, but it cannot be avoided. (Beaver, 1991, pp. 125, 126, emphasis added)

(Prediction can be avoided, by adopting current selling prices as the attribute of assets and the risk-free funding rate as the attribute of liabilities to use in financial statements.)

Thinking about the future provides no evidence about the future; it provides evidence about only the person doing the thinking: 'What we expect or hope an asset will yield, by use or by sale, is not a characteristic of the asset. What we expect or hope is a characteristic of ourselves' (Chambers, 1970, p. 49).

Further, the AICPA (1970, par. 90) and the FASB (1980, pars 81–89), state that financial statements must conform with the criterion of verifiability. But thoughts are not verifiable: no one other than a person doing some thinking has any chance of being sure what she's thinking, no less measure it. Though all who are not financial reporters know that, Kam felt he had to remind us financial reporters of it: 'we cannot be expected to read people's minds' (1990, p. 525). Johnson said that 'intentions are inherently unknowable by others' (1994, p. 6). If the issuer says what she is thinking about the future, she might be lying for her own benefit—some people are wonderful liars. What's worse, the issuer might not even know what she is thinking about the future—people are wonderful at self-deception. She might believe she is thinking one thing but her behaviour might demonstrate that she is thinking something else. A user understated the problem: 'I don't know how much work [it] is . . . to verify management's intent' (AICPA, Database, 1994, p. II, 5b, 8). Sterling did not beat around the bush: '[thoughts] are impossible to verify' (1987, p. 23).

One observer referred to the use of both thoughts about the future and surrogates for those thoughts! 'a . . . view is that values are inherently future-oriented, and, therefore, they ought to be stated to reflect the present value of *expected* future cash flows—even if we must use *surrogates* to quantify such data' (Vatter, 1971, p. 115, emphasis added).

[14] Imagine how a person such as I feels about the expression 'it is self-evident', meaning 'it is self-evidently true', followed by a statement the person considers self-evidently false.

[15] Here, an asset is not an economic resource; it is a thought.

THE MAGIC OF DISCOUNTING

> . . . discounting *into the present* the value of future fixed payments or receipts . . .
> —Ronen and Sorter (1989, p. 73, emphasis added)

The amounts involved in the financial effects of those supposed future events are discounted, multiplied by fractions less than one. Discounting is held to move those financial effects of events backwards in time, as Ronen and Sorter say, 'into the present', and to change the financial effects of the events into conditions: 'The stream of net *expected* values . . . is still future in time, and thus each item in the stream must be discounted before it can be treated as an element in present valuations' (Edwards and Bell, 1961, p. 81, emphasis added). That process is said to result in the present value. Discounting, we are asked to believe, magically changes both the time frame and the nature of the amounts of the financial effects of the supposed future events: supposed real world *future changes* are somehow transformed into real world *current conditions*. The process is said to represent the real world, not merely the imaginings of economists and managers.

We are asked to believe in magic.

In fact, 'a discounted value is [merely] an arithmetically adjusted forecast' (Sterling, 1979, p. 171).

THE REVERSAL OF CAUSE AND EFFECT

> So little disciplined by the irreversibility of time are some processes and their rationalizations that time sequences have become inverted.
> —Chambers (1989, p. 14)

If, as the American Accounting Association states, 'past performance can only be judged when the future is known' (1991, p. 90), past performance and current conditions cannot be known at present; we must await future events to occur to know them. As the poet says:

> Time present and time past
> Are both perhaps present in time future,
> And time future contained in time past.
> —T. S. Eliot, 'Burnt Norton'

But that is only poetry. (Similarly, 'Modern economics is in many respects metaphor run wild' [Kuttner, 1985, p. 83]) Financial reporting should not be based on poetry.

A present value is supposed to be a current condition of the reporting entity. The way it is defined—the discounted amount of the future cash receipts less the discounted amount of the future cash payments attributable to the asset—makes those future receipts and payments the causes of the current condition: As of time T_1, the time the current condition of present value is said to exist, there have been no such future receipts and payments (only prospects of them), so there is as of yet no present value in the real world (though there may be one in the imagination

of the financial reporter). Later, at times T_2, T_3 and so on, some receipts and payments may occur. The definition says that there is now a present value in the real world at T_1. Those receipts and payments at times T_2, T_3 and so on therefore caused the present value to come into existence at time T_1. Cause followed effect. But a cause cannot follow its effect in time, as everyone except us financial reporters knows.[16]

A correspondent said that nevertheless there is a present value as of time T_1. However, this article deals with the world outside of financial reporting and outside the thinking process of the issuers of financial reports. In contrast, the correspondent is dealing with the thought processes of the issuers of financial reports: The future cash flows underlying the concept of present value exist at the reporting date only in the minds of the issuers.

That a cause cannot follow its effect in time is denied by this statement by Kirk, former chairman of the FASB: 'future salary increases have retroactive effects on the [pension] benefit earned' (1990, p. 89). He was commenting on the requirement to incorporate anticipated future salary increases in determining liabilities that reporting entities currently have for defined benefit pension benefits in FASB Statement No. 87. He justified that requirement by stating that the increases have retroactive effects, that is, that the salary increases at times T_2, T_3 and so on are some of the causes of the amount of a liability at time T_1, that causes can follow their effect in time! However, a future event (such as a future salary increase) cannot be the cause of or affect a present condition (such as a liability for a benefit earned)—events do not have retroactive effects: they cannot change the past. (Both [a] retroactive calculations, which are thoughts that may or may not be written down, which in themselves have no effects, and [b] retroactive *laws* or *agreements*, which have only prospective, not retroactive, effects, and which do not and cannot change the past, can be and are made.)

The way *present value* is defined, its amount depends on which specific events occur in the future. But such future events, if they occur, depend not only on current conditions of the reporting entity but also on later developments independent of those conditions, including later actions of outsiders. To illustrate: A current condition supposedly might be, for example, the present value of a car factory the reporting entity currently possesses. Future cash movements concerning the factory, if they occur, depend, for example, on what might be future actions of car buyers. If Ms A later buys a car built at the factory, we are told to conclude that the current condition was one thing. If Ms A later considers buying the car but does not, we are told to conclude that the current condition was something else. Based on that, if Ms A buys the car later, that is a cause of a current condition, because, had Ms A passed up buying the car later instead, the current condition would have been different. Cause and effect, we are thus asked to believe, can work backwards in time. Again, a cause cannot follow its effect in time.

[16] Sagan's thought that 'few of us spend much time wondering ... if time will one day flow backward and effects precede causes' (1988, p. ix) is ignored here. If you disagree that it should be ignored here, see where that leads.

The only sound meaning of *cause* is an event that is instrumental in bringing about a concurrent or later event. The financial reporting literature changes that meaning: it incorporates the view that a cause can be an event that is instrumental in bringing about an earlier event.

CONCLUSION

To summarize: The concept of present value violates these conclusions reached in this article:

1. The future does not exist at present except in imagination, so the past and the present can in no way depend on the future.

   The concept of present value requires the past and the present to depend on the future.
2. The future does not exist at present except in imagination, so there can be no information or evidence about the future and no surrogates of information or evidence about the future.

   The concept of present value requires evidence or surrogates of evidence about the future.
3. Discounting does not change a future event or events—a cash receipt or payment or a series of cash receipts or payments—into a present condition.

   The concept of present value is based on the view that discounting changes future events into present conditions.
4. Cause and effect operates either simultaneously or forward in time. An effect cannot precede its cause in time.

   The concept of present value incorporates the view that an effect can precede its cause in time.

Because of those violations, the answer to question (1) under consideration in this article is no: Present value defined as the discounted amount of the financial effects of supposed future events does not exist as a real world condition. (As a result, questions (2) and (3) need not be answered.) Present value violates the number one criterion for the design of financial statements, that the items represent phenomena external to the financial statements and their preparation. The primary reason given for the need to know supposed future events in preparing financial statements, which is to determine the past and the present, is invalid. Contrary to the statements of the AICPA and the FASB referred to above, the discounted amount of supposed future cash receipts and payments does not exist outside of imagination and therefore is not an attribute of assets, no less the ideal attribute for the measurement of assets. It should not be considered a viable alternative to acquisition cost for use in presentation in financial statements.[17]

[17] For those interested in my position, it is that current selling prices should be the attribute of assets and the risk-free funding rate should be the attribute of liabilities to report in financial statements. But that is another article.

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APPENDIX

THE ULTIMATE FORM OF ALLOCATION

Having reached the major conclusion of this article, which is that the discounted amount of supposed future cash receipts and payments should not be considered a viable alternative to acquisition cost for use in presentation in financial statements, this article now appends a consideration of the relationship between the concept of present value and allocation.

Solely to explore the relationship between present value and allocation, the reasons present value is impractical and not an existing real world condition are ignored.

We are told that, ideally, the amounts and timing of all supposed future cash receipts and payments are somehow known. They are supposedly discounted backwards in time to determine financial position at the dates at which they were caused, using the compound interest formula and a discount rate. Income for a period is held to be determined by comparing the financial positions determined that way at the beginning and end of the period and excluding transactions between the reporting entity and its owners.

The compound interest formula is a systematic and rational allocation formula: 'The proposed concepts Statement would . . . address instances in which future cash flows are used as a basis for allocating costs, for example, periodic amortization using the interest method' (FASB, 1997, p. 2).

All such formulas used in allocation are predetermined without consideration of events as they occur period by period. The so-called ideal basis is the ultimate form of allocation, because it determines all amounts by allocation. And allocation is used solely because, by applying smooth—'systematic'—formulas, it spreads income statement items over reporting periods smoothly, contributing to meeting the incentive of the issuers of financial statements for stable income reporting:

> [D]epreciation is only part of a broader scheme whose purpose is to equalize charges between different years. (Hatfield, 1916, p. 134)

> [D]epreciation is clearly a device for smoothing irregular capital budgeting outlays. (Devine, 1985b, p. 79n.)

> The very purpose of measurement is to discover variations in empirical phenomena. By contrast, it seems that the purpose of allocation is to make the empirical phenomena appear to be smooth regardless of the actual variations. (Sterling, 1979, p. 226)

> [A]llocations [are] designed to produce smoothed income flows. (Lee, 1978, p. 45)

> The real goal of those who support allocation is to stabilize reported income. (Leonard Lorensen, quoted in Rosenfield, 2000, p. 110).

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Research Note: Revisiting Fair Value Accounting—Measuring Commercial Banks' Liabilities

IAS 39, *Financial Instruments: Recognition and Measurement* (IASB, 2000), requires assets to be marked to fair value if held-for-trading, available-for-sale purposes, or if they are derivatives; held-to-maturity securities, originated loans and originated securities are measured at amortized cost, providing they are not held-for-trading. Financial liabilities are measured at amortized cost except those that are held-for-trading or derivatives. A proposed amendment would accommodate improved fair value measurement of financial instruments. Commercial banks are greatly affected by any accounting standard concerning the recognition and measurement of financial instruments, whether related to assets or liabilities. This article demonstrates that the existing and proposed standards perpetuate the mismeasurement of interest rate risk for commercial banks. Under IAS 39 banks that have a balanced position, that is, no interest rate risk, counterfactually could show large changes in income through interest rate changes. An alternative accounting treatment, full fair value reporting of financial assets and liabilities, including all loans and deposits, is offered. Presently fair value data are mandated as footnote disclosure.

Key words: Commercial banks; Fair value; Liabilities; Measurement.

How to measure and disclose an entity's assets and liabilities has been long debated. This article adds insights by considering recent international standard prescriptions related to financial instruments. It addresses conceptually how to measure a liability in the setting of a commercial bank or other financial institution.

IAS 39,[1] *Financial Instruments: Recognition and Measurement* (IASB, 2000) continues the accounting practice of measuring financial assets at fair value,[2] except those that are unquoted equity instruments where the fair value cannot

[1] IAS 39, *Financial Instruments: Recognition and Measurement*, became effective with annual financial statements covering fiscal years beginning 1 January 2001 or later. It was subsequently amended in October 2000.

[2] 'Fair value' is presently the commonly used term since at least the 1970s; in the past 'market value' was the more commonly used term. There are diverse interpretations of fair value (Bergman, 2002).

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reliably be estimated and other financial assets held-to-maturity. Financial liabilities are measured at amortized cost except those held-for-trading and those financial derivatives for which a fair value can be reasonably estimated. However, there is a proposed amendment to accommodate 'more fair value measurements of financial instruments' (IASB, 2001).

Throughout this article the perspective of a commercial bank is adopted. Commercial banks are greatly affected by any changes in the measurement of financial instruments by virtue of the composition of their balance sheets, thereby providing a pointed example of the effects of different proposals. Measuring some assets and liabilities at fair value while others are measured at amortized cost means that any changes in market interest rates can induce income volatility that is not representative of the bank's interest rate risk.

'In mismatching the [interest rate] maturities of assets and liabilities as part of their asset transformation function, FIs [financial institutions] expose themselves to interest rate risk' (Saunders and Cornett, 2003). By introducing income volatility when a commercial bank has matched the interest rate maturities of its assets and liabilities, the mismeasurement of assets and liabilities leads to misleading data both within the firm and externally through its published results. Furthermore, a firm may make transactions to minimize the volatility that increases interest rate risk from its balance position.

This article provides an alternative to the present unsatisfactory measurement technique—fair value accounting for *both* assets and liabilities. This alternative has been put forward by the Joint Working Group of Standard Setters (2000) and a main contribution here is to provide support, through a brief literature review and through examples, to their position.

HISTORICAL BACKGROUND

It is often assumed, incorrectly, that 'conventional' cost-based financial statements have been the normal way of preparing accounts since accounting became a profession. Ma (1982) describes, through anecdotal evidence, the manner in which the valuation of balance sheets in Great Britain developed in the nineteenth century, particularly in regard to banking. He found this evidence when researching the archives of nineteen banks acquired by the Midland Bank. In 1827 the Hudderfield Banking Company's first deed of settlement stated that assets, 'shall be estimated, not at the cost, but at the then selling price thereof; so that the real state of the affairs of the Company may in such statement plainly appear' (Ma, 1982, p. 134). Similar clauses were in the deeds of the Bank of Westmoreland (1834), Carlisle City and District Banking Company (1838) and the London Joint Stock Bank (1839, fourth report to directors). However, some banks altered their requirements to the lower of cost or market (e.g., the London Joint Stock Bank in 1873). In 1879 banks were required to submit balance sheets in order to obtain limited liability (1879 Companies Act). That example was extended by the Chambers and Wolnizer (1991) study of fifty-five U.K. banks' valuation practices in the nineteenth century. Hence, as Ma, and Chambers and Wolnizer, demonstrate, the controversy between

fair value pricing and historical cost pricing, with respect of banks, dates at least from this time.

Considering a broader set of entities, Lisle (1903, p. 208) stated: 'All the assets included in a balance sheet should be stated at their fair value, and the liabilities should be fully shown. The balance sheet should not conceal any weakness in the financial position of the concern, but should give the fullest information to the shareholders and the general public, consistent, of course, with the proper conduct of the business.' However, thirty-six years on, MacNeal (1939, pp. 21–22) reveals how far the accounting prescriptions of the time had moved from fair (or truthful) disclosure with the statement: 'their profession . . . felt impelled to change its form of certificate from one which states that its financial statements were true, to a form of certificate which omits any mention of financial statement truth but merely states that such financial statements *truly and fairly reflect the application of accepted accounting practices to the facts disclosed*' (emphasis in original).

In the 1960s two seminal accounting theory monographs—R. J. Chambers' *Accounting, Evaluation and Economic Behavior* (1966) and Edgar O. Edwards and Philip W. Bell's *The Theory and Measurement of Business Income* (1961)—proposed methods that moved toward market value[3] measurement and away from amortized cost. The main differences between these studies were (a) Chambers used exit price as the appropriate form of measurement while Edwards and Bell used replacement cost, and (b) Chambers retained amortized cost for financial liabilities.[4] Sterling's magnum opus, *Theory of the Measurement of Enterprise Income* (1970) also recommended the use of exit prices for measurement. The issue of exit price versus replacement cost is not addressed further in this article since the differences between the two are minor for financial instruments.

Wright (1967), Staubus (1967) and Hendriksen (1967) joined in criticism of Chambers being inconsistent between his measurement of assets and liabilities. While recognizing the inconsistency, they did not identify the distortion in risk measurement that this inconsistency causes in the financial statements of commercial banks. Friedman (1978) developed a theoretical structure based on Sterling (1970) to support the use of market price for measuring debt.

This distortion of risk measurement is the main issue in this article.

The controversy over historical costs versus fair value accounting continues, with Ma and Lambert (1998, p. 148) stating that IAS 32 (and the Australian standard that is closely modelled on it, AASB 1033) stipulates 'that the classification made at the time of issuance cannot be revised in future years (paragraph 26) [thereby] impos[ing] on the issuer, by implication, reporting at historical cost'.

[3] Chambers used the term 'cash equivalent' as the best means to measure market or face value.

[4] It is interesting to note that there has been little academic defence of historical cost accounting but considerable debate on the measurement base to use in fair value accounting (Chambers, 1966, 1967, 1970, 1974, 1976; Ma, 1974; Baxter, 1967; Wright, 1967). McKeown (1971) tested Chambers' model and found it to be much more verifiable and objective than U.S. GAAP. Chambers' focus on the contractual amount of the liabilities is, of course, valid in the case of default. In that case the issuer owes the contractual amount which is the original principal minus payments made to principal plus accrued interest at the coupon rate plus any penalties.

Concerning fair value accounting of liabilities, Lipe (2002) demonstrates the distorting effects of using fair value liabilities if fair value includes a factor for declining credit quality. He acknowledges that reporting fair value based on changes in interest or exchange rates could be justified because 'a nondistressed company can realize the gain or loss by either repurchasing the debt or taking an appropriate derivative position' (p. 180). Lipe offers an alternative of splitting the fair value effect into that caused by the debtor's credit quality changes and that caused by all other factors.

It is possible that the controversy summarized above concerning historical cost accounting and fair value accounting was caused by different perceptions regarding the function of a balance sheet. Notwithstanding those perceptions, the emphasis of this article is on the measurement of financial liabilities in such a way that the estimate of interest rate risk is not distorted.

ISSUES FROM IAS 39[5]

A key point of IAS 39 is that all financial assets and financial liabilities, including all derivatives, are recognized on the balance sheet. All financial assets are measured at fair value except, as noted earlier: originated loans and receivables, unquoted equity securities whose fair value cannot be measured reliably, and fixed-maturity investments that a firm has the ability and intent to hold to maturity. If a firm holds unquoted equity instruments at amortized cost, derivatives that are linked to and must be settled by delivery of those securities are also measured at amortized cost.

All financial liabilities are measured at their original recorded amount less principal repayments and amortization except for derivative liabilities and liabilities held for trading, which are measured at fair value.

Under IAS 39 some interest bearing assets and liabilities are at amortized cost, others are at face value. If market interest rates change, the measurement of those at face value will change while those at amortized cost will not. As will be demonstrated later, this asymmetry will cause volatility in income and, hence, equity that is not representative of the interest rate risk inherent in the bank's balance sheet. There is a proposed amendment that would accommodate improved fair value measurement of financial instruments.

THE APPLICATION OF IAS 39 TO COMMERCIAL BANKS

The remainder of this article considers whether to measure financial liabilities at fair value. The Joint Working Group (JWG) of Standard Setters (1999) specifically addressed banking concerns and concluded that financial liabilities should be measured at fair value; it should be noted that the Joint Working Group of Banking Associations on Financial Instruments (1999) opposed the JWG's proposals.

There has been considerable controversy in the accounting literature about the pricing of fair value financial assets (and, to a lesser extent, fair value financial

[5] Information on issues from IAS 39 was taken directly from the IASB's website: www.iasc.org.uk.

liabilities). The arguments for amortized cost accounting and for fair value accounting for financial instruments has been especially intense with regard to the commercial banking and the savings and loan (building societies) industry since those firms hold a large percentage of their assets, and owe a large percentage of their liabilities, as financial instruments. This controversy was heightened by the 1980s U.S. savings and loan disaster and the manner in which amortized cost accounting mismeasured the net worth of the institutions (Kane, 1989).

The Issue of Interest Rate Risk

Interest rate risk[6] is defined as the risk caused by a mismatch of the interest rate maturities (as contrasted to 'payment' maturities) between financial assets and financial liabilities (see Saunders and Cornett, 2003; Rose, 1999). A fully floating-rate loan that requires no principal payment for ten years would have a maturity, for interest rate risk purposes, of one business day. The impact of changes in interest rates on the balance sheet of a commercial bank under IAS 39 without the proposed amendment is shown in Table 1. Assume a bank having $10 million in cash, $100 million in ten-year fixed rate government securities (remaining maturity) with a 6 per cent coupon, purchased at a 6 per cent yield, paying interest semi-annually and having liabilities of $100 million in ten-year term deposits (remaining maturity), issued at 4 per cent and paying interest semi-annually. Consider three scenarios: (a) no change in interest rates, (b) government security and term deposit interest rates immediately rise 2 per cent, and (c) government security and term deposit interest rates immediately fall 2 per cent.

TABLE 1

EFFECTS ON BALANCE SHEET FROM THREE SCENARIOS GIVEN MARKET-VALUE ASSETS AND AMORTIZED-COST LIABILITIES

Categories	1: Initial position	2: Increasing interest rates	3: Decreasing interest rates
Change in interest rates	0	+2.00	–2.00
Cash	10,000,000	10,000,000	10,000,000
Government securities	100,000,000	86,409,674	116,351,433
Total assets	110,000,000	96,409,674	126,351,433
Term deposits	100,000,000	100,000,000	100,000,000
Equity	10,000,000	–3,590,326	26,351,433
Liabilities + equity	110,000,000	96,409,674	126,351,433
Change in net worth	0	–13,590,326	+16,351,433

[6] Interest rate risk is one of many risks faced by commercial banks. Others include: credit risk (generally regarded as the most significant risk), foreign exchange risk, liquidity risk, fiduciary risk, defalcation risk and political risk. Notably, interest rate risk was the major cause of the savings and loan catastrophe in the U.S.A.; the risk was caused by a mismatching of thirty-year fixed rate mortgages against savings deposits which were functionally payable on demand (and, to a much lesser extent, term deposits).

The bank has no interest rate risk as defined above. The net interest income in the bank will remain unchanged, no matter what market interest rates do (ignoring the reinvestment of dividends). Thus, a bank which has no interest rate risk on a net interest income basis could report an insolvent position from a sharp increase in interest rates (change in net worth, column 2).[7] Conversely, the bank could show a substantial profit from a decline in rates (change in net worth, column 3). Both of these results arise from having assets reported at fair value and liabilities at amortized cost.

If the liabilities had been shown at fair value, the term deposits would have had the same value as the securities during increasing interest rates ($86,409,674) and during decreasing interest rates ($116,351,433).

The Issue of a Firm's Increasing Credit Risk Counter-Intuitively Increasing its Net Worth

Bradbury (2000) and Lipe (2002) point out that debt prices can change due to market interest rate changes or a change in perceived (by the market) credit risk of the firm issuing the debt. When addressing the issue of fair value liabilities, if a firm's credit risk increases, the fair value of its debt decreases; thus, with no adjustment being made in the assets, the change would cause the net worth of the firm to increase. This result has been viewed as counter-intuitive (see, e.g., European Central Bank, 2001). Lipe (2002) states that the alteration in the fair value of debt alters key ratios such as the debt-to-equity ratio. However, as Bradbury (2000, p. 23) states, 'an increase in credit risk on debt should alert managers (and auditors) to the possibility of asset impairment or an unrecognized liability (e.g., a legal claim on the entity)'. Barth and Landsman (1995, p. 103) state, 'This decrease in value [of the debt instrument due to worsening financial condition of the firm] is a transfer of wealth from the debt-holder to the issuing firm. Effectively, the debt-holder has committed to accept an interest rate that subsequently proves to be economically too low.' Lipe (2002) gives a bankruptcy restructuring example to attempt to counter these arguments. However, this example is insufficient to counter Bradbury (2000) and Barth and Landsman (1995) since the process of the restructuring, by its very materiality, would necessarily be disclosed. This point is elaborated through the examples below.

FULL FAIR VALUE MEASUREMENT OF FINANCIAL INSTRUMENTS

The Elimination of a Financial Liability From a Balance Sheet—Debt Defeasance

Chambers (1974, p. 132) stated 'the claims of the creditors against the assets of the firm do not become the less (or the greater) as a consequence of transactions

[7] Given the above accounting rules, in the U.S.A. the appropriate bank supervisor would be required to take prompt corrective action under provisions of Section 131 of the Federal Deposit Insurance Corporation Act of 1991 (FDICIA; United States of America, 1991).

TABLE 2

BEGINNING BALANCE SHEET COST BASIS

	Balance ($)	Term ($)	Interest rate
Cash	10,000,000	N/A	0
Government securities	100,000,000	10 years	6.00 fixed
Total assets	110,000,000		
Term deposits	90,000,000	10 years	4.00 fixed
Corporate debt	5,000,000	10 years	8.00 fixed
Corporate debt	5,000,000	10 years	3.00 fixed
Net worth	10,000,000		
Liabilities and capital	110,000,000		

between individual bondholders'. Through example, he demonstrates that even though a firm may purchase its own debt on the market as Ma (1974) suggested, it usually would not do so either because a lender to the firm will not be willing to lend or the company's advantage is not '"as satisfactory" as allowing the original issue to run' (Chambers, 1974, p. 132). However, as will be shown, potentially a firm may be able to accomplish a debt defeasance transaction, purchase its own debt, or renegotiate its debt with its lender; whether it actually does so is irrelevant. The fact that the firm has the ability to do so should be reflected in fair value measurement of financial instruments.

Consider the following example (Table 2): a commercial bank has $10,000,000 in cash, $100,000,000 in ten-year fixed rate government securities with a 6 per cent coupon and yield, $90,000,000 in ten-year fixed-rate term deposits at 4 per cent, $5,000,000 in debt issued for ten years at an 8 per cent coupon, $5,000,000 in debt issued for ten years at a 3 per cent coupon, all financial instruments having semi-annual interest 'payments'; 'all' maturities are stated at remaining maturities rather than initial maturities. Note: logically the bank could have fixed-rate term deposits at 4 per cent when it owns 6 per cent government securities by having the deposits issued at a different time under different market conditions than when the securities were purchased.

Further assume that the current market rate of interest for government securities is 6.5 per cent; term deposits are 7 per cent; bank corporate debt financial instruments are 7 per cent. Note that, regarding interest rate changes, the bank has no interest rate risk on a net interest income basis because the interest rate maturities of the assets precisely match the interest rate maturities of the liabilities ($100,000,000 at ten years in both cases). If market interest rates change during the ten years, the interest income from the assets and the interest expense from the liabilities are unaffected; hence, no interest rate risk exists.

Table 3 reports the balance sheet under full amortized cost accounting; fair value assets with amortized cost liabilities and fair value assets and liabilities.

TABLE 3

THREE BALANCE SHEET SCENARIOS

	Scenario 1	Adjust rates to market	Scenario 2 (Chambers)	Scenario 3 (JWG)
	Amortized cost accounting ($)		Fair value assets; amortized cost liabilities ($)	Fair value assets and liabilities ($)
Cash	10,000,000		10,000,000	10,000,000
Government securities	100,000,000	+0.5%	96,365,163	96,365,163
Total assets	110,000,000		106,365,163	106,365,163
Term deposits	90,000,000	+3.0%	90,000,000	70,813,256
Corporate debt—8%	5,000,000	−1.0%	5,000,000	5,355,310
Corporate debt—3%	5,000,000	+4.0%	5,000,000	3,578,760
Equity	10,000,000		6,365,163	26,617,837
Liabilities + equity	110,000,000		106,365,163	106,365,163

Under Scenario 3 (fair value assets and liabilities) a greatly improved equity position is disclosed, resulting mainly from the change in the market rate of the term deposits being much larger than in the securities. This captures the effect of interest rates changing for both assets and liabilities and the fact that these changes were in different increments. However, Scenario 2, which presumably Chambers would choose, shows a much different result. A commercial bank in Scenario 2 would have a greatly reduced equity position which could limit its growth opportunities. If Chambers' reservation about a firm's ability to alter its debt structure were overcome, then Scenario 3 would prevail.

In fact, the corporate debt in Scenario 2 can be partially transformed to Scenario 3 through in-substance defeasance, according to AASB 1014—that is, 'either by transferring to a trust assets which are adequate to meet the servicing requirements (both interest and principal) of the debt and are dedicated to that purpose, or by having a suitable entity assume responsibility for those servicing requirements' (ICAA and CPA Australia, 2001, p. 571). Additionally, with amortized cost accounting, a firm may choose which debt instrument to apply in-substance defeasance and, therefore, can increase its net worth substantially by this choice. For example, Table 4 applies in-substance defeasance to the example given in Table 3 in the case of fair value assets and amortized cost liabilities only for the corporate debt with the 3 per cent coupon. The firm chose not to apply in-substance defeasance to the 8 per cent corporate debt because that would increase its reported liabilities and thereby decrease stockholders' equity.

In the defeasance transaction, the commercial bank was required to offset a risk-free instrument against its corporate debt security. The in-substance defeasance allowed the commercial bank to recognize the gain in its financial position by having issued a 3 per cent debt instrument while the market rates changed to 7 per

TABLE 4

SELECTIVE IN-SUBSTANCE DEFEASANCE

	Fair value assets and amortized cost liabilities ($)	After issuance of new corporate debt ($)	After in-substance defeasance ($)
Cash	10,000,000	9,850,953	9,850,953
Government securities	96,365,163	96,365,163	96,365,163
New government security—6.5%, 10 year		3,727,807	
Total assets	106,365,163	109,943,923	106,216,116
Term deposits	90,000,000	90,000,000	90,000,000
Corporate debt—8%	5,000,000	5,000,000	5,000,000
Corporate debt—3%	5,000,000	5,000,000	
New corporate debt—7%, 10 year		3,578,760	3,578,760
Equity	6,365,163	6,365,163	7,637,356
Liabilities + equity	106,365,163	109,943,923	106,216,116

cent *and also* to not recognize the decline in its financial position from having issued an 8 per cent debt instrument when market interest rates fell.[8]

One could reason that Table 4 emphasizes the point of a counter-intuitive increase in net worth caused by a deterioration in the credit-standing of the bank since the market rate of the term deposits increased at a much higher differential than the market rate of risk-free securities (from Table 3 the market rate on government securities rose 0.5 per cent while the market rate on term deposits rose 3.0 per cent). However, as Bradbury (2000) stated, the other consequences in this decline of credit-standing must be examined. In the case of a commercial bank, the most logical explanation would be a dramatic decline, perceived by the market, in the quality of the bank's assets. In a balance sheet reflecting fair values of all the assets and liabilities of a normal bank, this would probably be found in the loan portfolio. Hence, accountants and auditors would require the reduction of the fair-value of the loan portfolio commensurate with the decline in quality through an increase in the allowance for loan losses or a write-off or write-down of specific loans. But that is fodder for further work.

The Existence of Fair Value Accounting in Commercial Banks

Following FAS 107, commercial banks in the U.S. have since 15 December 1992 been required to report all financial instruments at fair value in the form of a footnote disclosure (FASB, 1991). Similar standards apply in some other countries.

[8] This type of selective re-evaluation has analogous results to the selective sale of securities held at a profit by the savings and loan industry in the U.S.A. in the 1980s.

Thus the nub of controversy concerning fair value accounting of liabilities for commercial banks is whether information presently shown in the footnotes should be reported on the balance sheet. A key advantage of full fair-value accounting is to eliminate the asymmetry between assets and liabilities that causes such perverse consequences as interest rate risk being inaccurately reflected. This creates an incentive for a firm to conduct selectively in-substance defeasance transactions (or selectively to buy its own debt in the market) and an unrealistic evaluation of capital for capital adequacy standards.

SUMMARY

From at least the 1960s there has been a controversy over the issue of fair value liabilities. Even between proponents of market price accounting systems such as Edwards and Bell (1961), Chambers (1966) and Sterling (1970), there has been disagreement. Chambers was prominent in arguing that face value at all times is the appropriate measurement for liabilities.

In a commercial bank, reporting assets at fair value and liabilities at amortized cost can severely distort the bank's performance during interest rate changes; thus interest rate risk is measured improperly. Presently, IAS 39 requires assets to be measured at fair value except for held-to-maturity securities and originated loans and securities that are not held-for-trading, while financial liabilities, except for derivatives, are measured at amortized cost. Therefore the present international accounting standard continues the situation of interest rate risk being improperly reflected in a banks' statement of accounts. As shown in the examples in this article, a bank which has minimized its interest rate risk can still show wide variations in its income due to changes in market interest rates. Furthermore, in-substance defeasance transactions can be selectively used (as they could be with full amortized cost accounting) to manage reported capital to help overcome capital adequacy deficiencies. Additionally, selective purchasing of a bank's own corporate debt, as Ma (1974) describes, could lead to misleading financial statements if liabilities are measured at amortized cost and assets at fair value.

The alternative of applying a full fair value accounting of financial instruments is feasible. Presently these data are reported in the footnotes of commercial banks in the U.S. Reflecting fair value accounting in the balance sheet and income statement would provide these statements with the impact of interest rates changes on a contemporaneous basis, thereby accurately incorporating the results of a bank's interest rate risk position. Incentives to manage earnings through selective debt defeasance or debt buy-backs would disappear since fair value changes in the financial assets and liabilities would be recognized.

While the points made by Chambers have been questioned in the commercial banking context, it should be noted that he was proposing a more general theory. This article highlights the large effects of interest rate risk and asymmetrical measurement of financial assets and liabilities. The same issues apply for non-banking firms with respect to financial instruments. Further research is needed to address the issues of measuring liabilities other than financial instruments.

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Earnings Management Around Share Repurchases: A Note

This work examines a subset of the important area of earnings management. Specifically, it seeks to identify the extent of earnings management preceding self-tender offers for a sample of U.S. firms. Pre-repurchase total accruals and discretionary current accruals were found to be somewhat lower for a sample of self-tendering firms compared to a sample of industry- and performance-matched control firms. Weak evidence of post-buyback accruals reversal is also presented. The evidence is weakly consistent with the notion that share repurchases are employed by managers to exploit shareholders through earnings management.

Key words: Earnings management; Share repurchases.

This article extends the growing literature on earnings management. The general area of earnings management has gained significance post-Enron given the attention paid by regulators to what constitutes 'quality accounting information'. Recent editorials in this journal have noted this development. A subset of the earnings management literature is addressed; namely the examination of whether share repurchases provide management with incentives to misrepresent firm performance. Specifically, earnings management around share repurchases is tested via the tender offer method, and it is hypothesized that pre-repurchase earnings are managed downward in order to induce shareholders to sell their shares at sub-par prices. Further, that post-repurchase earnings are higher than expected as the accruals management process is reversed. The study complements prior work that examines biased financial reporting around equity offerings (Teoh *et al.*, 1998a; Rangan 1998), management buyout offers (DeAngelo, 1986; Perry and Williams, 1994), initial public offerings (Teoh *et al.*, 1998b; Teoh *et al.*, 1998), corporate control contests (Erickson and Wang, 1999), management earnings forecasts (Kasznik, 1999), import relief investigations (Jones, 1991), auditor changes (DeFond and Subramanyam, 1998), and periods of corporate distress (DeAngelo *et al.*, 1994). (For a comprehensive review of the earnings management literature see Healy and Wahlen, 1999.)

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BACKGROUND ON SHARE REPURCHASES

Two forms of repurchases are open to all shareholders: open market repurchases that are executed through brokers at current market prices and regular commission rates, and self-tender offers where the firm makes a public offering to buy back a pre-specified number of shares at a given price (or range of prices in a Dutch auction) within a certain time period.[1] Employing standard event-study methods, much prior research provides strong evidence that the announcement of a share repurchase elicits a favourable stock market response (e.g., Masulis, 1980; Vermaelen, 1981, 1984; Dann, 1981). Several possible motives for share repurchases have been posited in the literature: share repurchases may be used as an information-signalling vehicle, leading firms to experience significantly negative abnormal returns in the months prior to an open market repurchase; share repurchases may also be employed to reduce management's ability to disgorge excess funds and thus decrease the repurchasing firm's agency costs of free cash flow; share repurchases may be used as a vehicle for adjusting leverage to a more desirable level; and finally, repurchases may be employed defensively by management to fend-off takeover attempts (Denis, 1990).

In the long term, evidence suggests operating performance improves following both open market repurchases (Bartov, 1991) and self-tender offers (Dann *et al.*, 1991). Interestingly, the market seems to under-react to both types of repurchase announcements since there are positive excess returns in the years following self-tender offers (Lakonishok and Vermaelen, 1990) and open market share repurchases (Ikenberry *et al.*, 1995).

HYPOTHESIS DEVELOPMENT

Managing the discretionary component of earnings, often proxied by 'discretionary' accruals, is largely a reversible process. That is, the timing and matching principles will result in a temporary misstatement of earnings, but should not affect earnings in the long run. Thus, the question of timing is important in understanding management's incentives to mislead investors. In particular, earnings management is likely to take place around corporate transactions where investors are invited to trade firm securities because of the higher cost of information asymmetry around such transactions and because in these cases the temporary misstatement of the firm's financial position is likely to lead to permanent wealth transfers from uninformed investors to informed insiders. For example, managers have incentives to manage earnings before an initial public offering or a seasoned equity offering where investors are invited to acquire part of the firm. In these cases it is expected that there will be upward earnings management, given managers' desire to make firm securities more attractive, albeit temporarily, to market participants. By contrast, managers have incentives to manage earnings downward prior to a management buyout, to make the firm's securities look less attractive, and thus disposable, to existing shareholders.

[1] Less frequently, management repurchases stock from a large shareholder in a 'greenmail' transaction, or offers to buy back odd lots of shares to reduce shareholder servicing costs.

The empirical evidence is largely consistent with these notions. See the Teoh *et al.* (1998a) study of earnings management around seasoned equity offerings; the Teoh *et al.* (1998b) and Teoh *et al.* (1998) studies of IPOs and the relation between accruals management and subsequent stock returns; and Perry and Williams' (1994) examination of MBOs that failed to reconcile the results (DeAngelo, 1986).[2]

It is argued here that share repurchases also provide managers with incentives to manage pre-repurchase earnings. Managers wish to buy shares at the lowest possible price, consistent with the adverse selection arguments of Lucas and McDonald (1990). Managers have incentives to depress pre-repurchase earnings in order to convince shareholders to tender their shares at the pre-specified price. This is consistent with managers feeding the market with unfavourable earnings news to kill the public's interest in the stock aiming at lower-than-fair buyback prices. Additionally, managers may misstate earnings in self-interest, leading other shareholders to sell while increasing their share of corporate ownership by not participating. Drawing on these arguments and prior research it is hypothesized that managers will artificially depress the accruals component of earnings prior to a share repurchase.

In the case of equity offerings, earnings management favours existing shareholders and managers at the expense of new shareholders. In contrast, in the case of repurchases, it is posited that management is aligned with the group of shareholders deciding not to sell their shares back to the firm (the non-participating shareholders), at the expense of those who will. This is because managers routinely commit not to tender their shares back to the firm in order to enhance credibility of the repurchase as a signal to investors.

Furthermore, given that accruals management is a temporary and reversible process, accruals are expected to revert back to normal levels in the periods following the self-tender offer (in our study, three years). Given pre-repurchase manipulation of earnings downward, such accruals are expected to appear abnormally high in the post-buyback periods even though this would be an artefact of pre-buyback manipulation.

This article examines self-tender offers rather than open market repurchases (OMR) because tender offers are larger transactions; therefore, their effects are likely to be more material. Tender offers are also longer term, strategic decisions and are therefore more likely to be 'set up' by prior earnings management.[3]

[2] Additional evidence by Dechow *et al.* (1996), who study a sample of firms that are subject to enforcement actions by the SEC, suggests that when earnings management is announced there is a significant decline in stock prices. Further, Erickson and Wang (1998) find that at the time of a stock-for-stock merger, management manipulates earnings upward so that less of a firm's stock will be required for the merger, essentially lowering the purchase price.

[3] In comparison, OMR occur nearly ten times more frequently than tender offers (Bagwell and Shoven, 1989). In the Comment and Jarrell (1991) sample, tender offers repurchase 14.9 per cent of company stock, and elicit a seven-day market reaction of 8.4 per cent. The average market capitalization of a firm in their sample is $1.357 billion. OMR are generally announced by smaller firms seeking fewer shares and eliciting a weaker stock market response. See Vafeas (1997) for evidence on differences between tender offers and OMR.

Finally, voluntary as opposed to defensive repurchases are reviewed because defensive buybacks are likely to be reactive and do not provide management with the necessary time or incentives to manage earnings.

DATA AND METHODOLOGY

Our initial sample of share repurchases is the sample of public U.S.-based firms used by Comment and Jarrell (1991) and covers the period from 1984 to 1989. From that sample, firms that belong to the financial and utility sector are eliminated. It is expanded by sixteen tender offers that were announced between 1990 and 1992 in the *Wall Street Journal*. This sample construction process results in a final sample of a hundred tender offers. The sample spacing in time and across two-digit SIC codes exhibits no systematic biases that could affect our test results.

To examine the extent of accruals management around share repurchases, a comparison is undertaken of the earnings components of self-tendering firms to a sample of benchmark control firms. Following Teoh *et al.* (1998a), each tendering firm is matched to a control firm that did not engage in a self-tender offer in the year of interest, belonged to the same two-digit primary SIC code as the tendering firm and, importantly, had a net income-to-assets ratio in the year before the tender offer that was as close to that of the tendering firm as possible. Matching on performance is very important in assessing the impact of repurchases on performance because of the mean reverting property of earnings (Barber and Lyon, 1996). For example, in the absence of a pre-event performance control and given abnormally poor pre-event performance, mean reversion alone would lead to apparent post-event performance improvements (see, e.g., Vafeas, 1999).

Following prior studies (e.g., Teoh *et al.*, 1998b), to detect earnings management we analyse the profile of each sample firm for seven years around the share repurchase, from three years prior to until three years after the event. Results from years –3 to –1 and years +1 to +3 can be definitively labelled as the pre- and post-repurchase years, capturing the hypothesized earnings management and accruals reversal periods respectively. In contrast, results from year 0, which is the year the repurchase took place, are open to alternative interpretations. Year 0 includes activity both before the repurchase, hypothesized to be part of the earnings management period, and after the repurchase, hypothesized to be part of the accruals reversal period. Thus, only tentative interpretations are offered for the results from year 0.

It should also be noted that self-tender offers are unlikely to be planned many years in advance. Earnings management is expected to be most pronounced in the financial statements that are released in the last fiscal year before the repurchase, and that refer to a time period that ends, on average, six months before the repurchase. Following prior earnings management studies, an examination occurs for the period of three years prior to the repurchase. This captures a more extended view of a firm's pre-repurchase profile.

To examine the behaviour of accruals, the earnings variable is decomposed into cash flow from operations and total accruals. It further decomposes accruals into

current and long-term components. To detect accruals management we follow closely Teoh *et al.* (1998a) in employing a modified version of the Jones (1991) model (also see Dechow *et al.*, 1995). Specifically, for each sample firm and for each of the seven years examined, from three years prior to until three years after the repurchase, expected current accruals are estimated based on the cross-sectional relation between current accruals to changes in sales minus changes in accounts receivable for each two-digit SIC code in our sample. The estimated parameters from this regression and the actual sales and receivables changes for the repurchasing firm are then used to estimate expected current accruals and non-discretionary current accruals for that firm. The difference between actual and discretionary accruals constitutes the discretionary current accruals component; that is, the component of current accruals over which managers are thought to have the greatest amount of control. Similarly, estimates of expected total accruals based on the cross-sectional relation between total accruals to sales and property plant and equipment are calculated. The estimated parameters are used to assess expected total accruals and, by extension, expected long-term accruals. Non-discretionary and discretionary long-term accruals are decomposed as described earlier. For a detailed description of this method see Teoh *et al.* (1998a).

To assess the statistical significance of the earnings figure and its components around the repurchase, we employ the non-parametric Wilcoxon signed-ranks matched-pairs test and a sign test. These non-parametric tests are desirable for toning down the effect of outliers. The next section describes and discusses the empirical results of these tests.

RESULTS

Table 1 examines the performance of self-tendering firms against two benchmarks: firm performance net of the performance of the median firm in the corresponding two-digit SIC code for that year, and firm performance net of the corresponding performance-matched control firm's performance. Two performance measures are used: net income, for which we present results in panel A, and operating cash flows, for which we present results in panel B.

Interestingly, industry-adjusted income-to-assets is positive and significant in each of the years examined, peaking at year 0, indicating that self-tendering firms outperform their industries, on average. By sample construction, self-tendering firms are statistically indistinguishable from control firms in the pre-repurchase years, but outperform control firms in the buyback year. The difference in net income is significantly positive in year 0 at the 0.01 level.

Industry-adjusted cash flows are also significantly positive, peaking in year 0. Importantly, repurchasing firms have higher operating cash flows than control firms in year –1 (the difference being marginally insignificant in year –2), and by extension have lower total accruals, as would be predicted by pre-repurchase earnings management. Post-buyback operating cash flows are indistinguishable across the two samples, suggesting that part of the higher post-buyback net income of repurchasing firms is a result of higher accruals, also consistent with the study's expectations.

TABLE 1

TIME SERIES PROFILE OF ASSET-SCALED NET INCOME AND CASH FLOWS FROM OPERATIONS, FROM YEAR –3 TO YEAR +3 RELATIVE TO THE TENDER OFFER ANNOUNCEMENT

Year	–3	–2	–1	0	+1	+2	+3
Panel A: Industry-adjusted NI							
Median	0.0157	0.0270	0.0297	0.0401	0.0299	0.0211	0.0242
Wilcoxon z	3.033***	3.890***	5.333***	6.106***	3.879***	2.375***	1.871*
Positive/negative (binomial sign test)	59/30***	65/27***	78/21***	74/26***	64/29***	57/32**	54/32**
Sample size	89	92	99	100	93	89	86
Panel B: Control-firm-adjusted NI							
Median	0.0158	0.0025	–0.0006	0.0240	–0.0014	0.0086	0.0126
Wilcoxon z	0.533	0.278	–0.297	3.321***	0.587	0.719	1.112
Positive/negative (binomial sign test)	39/33	45/40	47/52	64/36***	44/45	43/39	39/35
Sample size	71	85	99	100	89	82	74
Panel C: Industry-adjusted OCF							
Median	0.0213	0.0345	0.0461	0.0593	0.0253	0.0495	0.0308
Wilcoxon z	2.333**	3.813***	4.577***	5.707***	2.290**	3.876***	3.729***
Positive/negative (binomial sign test)	49/36	58/29***	70/23***	71/23***	55/32**	54/28***	57/22***
Sample size	85	87	93	95	87	82	79
Panel D: Control-firm-adjusted OCF							
Median	–0.0057	0.0160	0.0235	0.0407	0.0051	–0.0017	0.0057
Wilcoxon z	–0.156	1.636	1.974**	3.868***	0.423	0.127	–0.655
Positive/negative (binomial sign test)	32/35	45/33***	52/40	64/29***	45/37	37/38	34/32
Sample size	67	78	92	93	82	75	66

Note: Net income (NI) and cash flows from operations (OCF) are scaled by the previous year's total assets and are adjusted by the corresponding ratio of the median firm in the industry (two-digit) or of a performance- and industry-matched control firm. *, ** and *** represent statistical significance at the 10%, 5% and 1% levels (two-tailed) respectively.

Next, Table 2 examines directly the behaviour of total accruals and their components around share repurchases. All tests use the corresponding control firm's accruals as a benchmark. A four-way partition is used into current and long-term accruals and further into discretionary and non-discretionary accruals. Focusing first on total accruals we observe that repurchasing firms exhibit lower total accruals than control firms in years –2, –1 and 0 under the non-parametric Wilcoxon test. This evidence supports earnings management prior to share repurchases. Nevertheless, total accruals do not appear to revert upwards in the post-buyback years.[4]

Further, earnings management would be expected to be most evident in current accruals that are 'most easily managed'. In particular, following Teoh *et al.* (1998a), the discretionary component of current accruals would be expected to be manipulated by managers. In line with this expectation, discretionary current accruals are significantly negative in years –2, –1 and 0, similar to evidence on total accruals. Consistent with reversion in accruals management after the repurchase, discretionary current accruals are positive in year +1 under the sign test, and in year +2 under the Wilcoxon test. Non-discretionary current accruals are also negative and significant in year 0. The long-term accruals components are not significant around the repurchase. In sum, accruals are somewhat lower than expected before the repurchase consistent with earnings management. This result appears to stem from the management of discretionary current accruals. In line with expectations, there is also some evidence of upward reversion in post-repurchase discretionary current accruals.

Next, the behaviour of earnings and earnings components around share repurchases is analysed—changes in net income, cash flows and accruals are examined. All changes are compared to analogous changes in the matched control firms. In general, the Table 3 results contain limited information. First, net income increases significantly from year –1 to year 0 consistent with earlier evidence. Second, cash flows similarly increase over that period but appear to decrease over the following period. Further, total accruals exhibit no changes over the period examined. Last, although discretionary current accruals exhibit no pre-repurchase changes, they increase immediately following the repurchase, consistent with the 'undoing' of accruals management. Nevertheless, the overall results of tests of changes in the earnings figure and its components in Table 3 are quite weak.

[4] A caveat should be noted in interpreting results from year 0 due to the uncertain weight of pre- and post-repurchase unobservable earnings and accruals components in the observable, yet aggregate, year 0 earnings figures. One possibility that would be consistent with both our hypotheses and empirical results regarding year 0 is that the extent of pre-event earnings management in year 0 countervails the extent of post-event accruals reversal, on average.

TIME SERIES PROFILE OF CONTROL-FIRM-ADJUSTED ACCRUALS COMPONENTS FROM YEAR –3 TO YEAR +3 RELATIVE TO THE TENDER OFFER ANNOUNCEMENT

Year	–3	–2	–1	0	+1	+2	+3
Panel A: Total accruals							
Median	–0.0050	–0.0205	–0.012	–0.0245	0.0125	0.0160	–0.0050
Wilcoxon *z*	–0.425	–1.906*	–1.824*	–1.987*	0.435	1.0270	0.116
Positive/negative (binomial sign test)	31/36	32/47	39/53	39/54	45/37***	44/31	32/34
Sample size	67	80	92	94	82	75	66
Panel B: Discretionary current accruals							
Median	0.0012	–0.0183	–0.0189	–0.0113	0.0237	0.0286	–0.0067
Wilcoxon *z*	0.391	–1.811*	–1.782*	–1.666*	1.368	2.092**	0.158
Positive/negative (binomial sign test)	31/30	34/44	40/49	37/54*	49/30**	40/30	30/32
Sample size	61	78	89	91	79	70	62
Panel C: Non-discretionary current accruals							
Median	0.0015	–0.0024	–0.0017	–0.0050	–0.0002	0.0002	–0.0028
Wilcoxon *z*	0.607	–1.571	–0.614	–2.333**	–0.428	–0.870	–1.442
Positive/negative (binomial sign test)	36/33	37/46	44/52	38/60**	41/45	40/39	33/39
Sample size	69	83	96	98	86	79	72
Panel D: Discretionary long-term accruals							
Median	0.0136	0.0024	0.0047	–0.0029	–0.0196	–0.0114	0.0007
Wilcoxon *z*	–0.215	0.143	0.046	–0.035	–1.108	–1.192	0.162
Positive/negative (binomial sign test)	35/25	38/37	46/42	43/46	32/46	30/38	30/30
Sample size	60	75	88	89	78	68	60
Panel E: Non-discretionary long-term accruals							
Median	0.0018	–0.0046	–0.0044	0.0006	–0.0015	–0.0028	0.0012
Wilcoxon *z*	0.275	–0.358	–1.177	–0.292	–0.843	–0.739	0.260
Positive/negative (binomial sign test)	36/31	36/46	41/54	48/48	39/46	30/47*	36/34
Sample size	67	82	95	96	85	77	70

TABLE 3

CONTROL FIRM-ADJUSTED CHANGES IN NET INCOME, CASH FLOWS FROM OPERATIONS, TOTAL ACCRUALS AND ACCRUALS COMPONENTS FOR A SAMPLE OF SELF-TENDERING FIRMS

Year	–2	–1	0	+1	+2	+3
Panel A: Changes in net income						
Median	–0.0221	–0.0002	0.0271	–0.0133	0.0044	–0.0020
Wilcoxon z	–1.559	–0.489	3.110***	–1.131	0.252	–0.008
Positive/negative (binomial sign test)	27/44*	42/43	60/39**	37/52	42/39	36/38
Sample size	71	85	99	89	81	74
Panel B: Changes in operating cash flows						
Median	0.0100	–0.0054	0.0406	–0.0474	0.0010	0.0170
Wilcoxon z	0.380	–0.476	2.133**	–2.277**	–0.191	1.460
Positive/negative (binomial sign test)	34/32	38/38	55/36*	29/53**	37/37	37/29
Sample size	66	76	91	82	74	66
Panel C: Changes in total accruals						
Median	–0.0240	0.0105	–0.0070	0.0340	0.0165	0.0020
Wilcoxon z	–0.332	0.209	–0.251	1.318	0.638	–0.077
Positive/negative (binomial sign test)	34/32	41/37	43/47	48/34	42/32	34/32
Sample size	66	78	91	82	74	66
Panel D: Changes in discretionary current accruals						
Median	0.0004	–0.0077	0.0319	0.0182	–0.0016	–
0.0204						
Wilcoxon z	0.571	0.031	0.518	1.803*	0.954	–0.973
Positive/negative (binomial sign test)	31/30	37/39	51/38	47/32	34/35	28/33
Sample size	61	76	89	79	69	61
Panel E: Changes in discretionary long-term accruals						
Median	–0.0042	0.0045	–0.0018	–0.0100	0.0154	0.0010
Wilcoxon z	–0.385	0.113	–0.213	–0.911	0.350	0.242
Positive/negative (binomial sign test)	26/33	40/33	43/43	34/43	35/32	30/29
Sample size	59	76	86	77	67	59
Panel F: Changes in non-discretionary current accruals						
Median	0.0031	0.0048	–0.0013	0.0045	0.0003	–
0.0059						
Wilcoxon z	0.141	1.099	–0.417	0.437	0.057	–0.934
Positive/negative (binomial sign test)	37/32	45/38	46/50	48/38	39/39	32/39
Sample size	69	83	96	86	78	71

TABLE 3

(CONTINUED)

Year	−2	−1	0	+1	+2	+3
Panel G: Changes in non-discretionary long-term accruals						
Median	−0.0039	0.0012	0.0036	−0.0025	−0.0025	−0.0004
Wilcoxon z	−0.212	−0.275	0.971	−0.165	0.435	0.158
Positive/negative (binomial sign test)	30/37	41/41	50/44	39/45	36/40	34/35
Sample size	67	82	94	84	76	69

Note: The matching adjusted change in net income is computed as

$$\left(\frac{NIa,t}{TAa,t-1}-\frac{NIa,t-1}{TAa,t-2}\right)-\left(\frac{NIm,t}{TAm,t-1}-\frac{NIm,t-1}{TAm,t-2}\right)$$

where a and m are the announcing and matched firm, t is the fiscal year and NI is the net income (Compustat item 172) deflated by beginning period book value of total assets, TA. Changes in cash flows from operations, total accruals and accruals components are calculated in the same way. ***, ** and * denote significance at the 1%, 5% and 10% levels respectively.

CONCLUSION

Results reported here provide weak evidence of biased accruals reporting by managers around self-tender offers. This result comes from a comparison of pre-repurchase total accruals for samples of self-tendering and performance-matched control firms. Decomposition of total accruals indicates earnings management springs from management of discretionary current accruals. There is also some evidence supporting a post-repurchase reversal of the accruals management process.

The weak results could have been due to our earnings management tests lacking sufficient power. Alternatively repurchases may not provide strong incentives and opportunities for earnings management, and are thus only sparingly used to this end. Further research could study in more detail earnings management incentives and the effectiveness of alternative mechanisms for prevention and detection of earnings management.

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FORUM: THE ACCOUNTING CONCEPTUAL FRAMEWORK
Introduction

In the period following the collapse of Enron and WorldCom in the U.S. and elsewhere—such as One.Tel and HIH in Australia—the accounting practices used by those companies came in for a great deal of criticism, culminating in a plea from President George W. Bush for 'truthful books and honest people, and well-enforced laws against corruption and fraud' (Bush, 2002). In keeping with the spirit of review, the Accounting Foundation within The University of Sydney sponsored a one-day Forum on the Accounting Conceptual Framework (CF) in December 2002. The intention was to re-examine the content and scope of the CF to see if the framework which underpins accounting standards is adequate for the task of ensuring 'truthful books' and clear and understandable financial reports. In keeping with that objective, all of the authors were invited to provide recommendations for overcoming any perceived deficiencies in the CF, some of which are referred to below. The papers presented here are a selection taken from the Forum—more specialized papers have been, or are expected to be, published elsewhere.

The selection presented here starts with an overview of the accounting professions' motivation for and experience in developing a CF (Dean and Clarke). It is a somewhat sceptical view, summarized in the statement that 'CF exercises have been shown to have engaged more in a search for explanations of the ideas underpinning conventional practice than the articulation of the concepts with which accounting data must conform'. In support of that proposition, Dean and Clarke use Chambers' *Accounting Thesaurus* (1995) to identify a number of quotes that support the view that conceptual frameworks in other fields are based on real world, observable phenomena that delineate the function of the structure in question. Interestingly, those quotes reveal a substantial divergence between the expectations of those dealing with the physical sciences and those concerned with accounting. Those in the physical sciences see their conceptual framework emerging from the physical world—a matter of experience and observation. Those in accounting, it seems, see their conceptual framework as being a matter of choice, agreed processes and a selection of phenomena determined by some authoritative body. Dean and Clarke also point out that the current demands for reform follow a well-trodden

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path behind earlier corporate failures and other 'crises', such as periods of high inflation, and the inevitable demands for accounting to 'clean up its act'. Little wonder that opinions on the likelihood and usefulness of a conceptual framework in accounting include such gems as 'attempts to seek to base the authority for accounting standards on an agreed conceptual framework are bound to fail' and 'There isn't going to be one conceptual framework that's going to solve all the problems'. Dean and Clarke reflect on this apparent 'sense of futility' and emphasize, instead, the path of the natural sciences that leads to a recognition that the 'framework of legal, social and economic concepts underpinning ordinary, everyday commerce *is* the CF of accounting'.

In case there was any doubt of the need for a solid and clear base upon which to build a framework of accounting standards, both Loftus and Booth provide a litany of standards that are inconsistent with the conceptual framework and illogical in their own construction. Loftus explores in some depth the relationship between the Statements of Accounting Concepts and specific standards. She illustrates numerous examples of inconsistency, ranging from the misapplication of the definition of the reporting entity and inconsistencies in the treatment of jointly controlled and associated companies to difficulties in the application of qualitative characteristics, as required by the Australian Statement of Accounting Concepts No. 3 (SAC 3). Her conclusion that 'Accounting standards tolerate different accounting methods at the expense of comparability' cuts to the core of the current debate. If the existing standards do not enable investors to compare the performances of different entities supposedly reporting under the same rules, then we must ask why we have accounting standards?

Booth continues the theme, but his method is different. Starting with the definitions set out in various Statements of Accounting Concepts, he analyses the application of those definitions in specific accounting standards. In some cases, his analysis and reinterpretation takes him perilously close to the old debating trick of *reductio ad absurdum*. But the points he makes are telling. Some of the definitions are absurd because they are either meaningless or circular. Furthermore, as Booth points out, the definitions are not applied consistently because the outcome is, presumably, unacceptable to the accounting profession or its corporate clients. A 'political patch' is applied, leading to the kind of inconsistencies that Loftus has already alluded to and illustrated. There are other infelicities—such as the 'probability of future economic benefits'. This phrase has various interpretations ranging from 'beyond any reasonable doubt' through 'convincing or other evidence' to 'virtual certainty'. Booth questions why the recognition of different classes of assets is dependent upon different levels of probability and why those differences are not explained. He also points out that there is no explanation of why different levels of subjectivity are acceptable in the interpretation of the criteria expressed in SAC 4 such as that which requires a 'value that can be measured reliably'. This is not just an 'asset problem'. Similar variations and inconsistencies are found and illustrated in the standards dealing with liabilities, revenues and expenses.

Although Booth's analysis is a crushing indictment of current accounting standards, the paper is not altogether negative. Attached to it are two appendices relating

to assets and liabilities, and revenues and expenses. In each, Booth compares the key definitions in SAC 4 with those in the IAS framework and provides a 'suggested amendment' designed to overcome the defects he has identified in the Australian standards. The suggested form of the key definitions has the great advantage of being simple and consistent, but not everyone will agree with the outcome. For example, Booth points out that under his definitions neither purchased nor internally generated goodwill would be recognized as an asset, while all resource rights acquired under a lease would be recognized. This raises the question of whether standard setters are able to stick to a set of principles, or whether the practice of providing a political patch for unpalatable outcomes will prevail.

The analysis presented in the first three papers from the Forum reproduced here establishes a clear case for both the need for a CF and an indictment of the existing framework. That indictment raises the question of what form the framework should take. Newberry addresses this issue in a novel but instructive way. She points out that a framework can take two forms: It can be a rigid structure that supports the whole apparatus that hangs off it; or it can be a hidden, flexible support for whatever image is to be presented. The trouble with the latter is that it is too easy to change and it does not inspire confidence that the apparatus (in this case, accounting standards) will be consistent, reliable, trustworthy and clearly understood. Indeed, the reason for preferring a flexible structure is that it is easy to change, can accommodate new fashions, and makes no pretence of the need to be internally consistent or to yield consistent results—hardly a good prescription for a reliable set of accounting standards!

Newberry uses the metaphor of a physical structure to analyse the definition and interpretation of 'net income'. She points out that, because of the lack of consistency between the Financial Accounting Standard Board's (FASB's) definition of income and conventional measures of assets and liabilities, the CF was unserviceable and analysts have increasingly concentrated on other numbers supplied by corporate accountants—the so-called 'pro-forma' or 'street numbers' such as EBITDA (see Schuetze, 2001). This is made possible because the underlying framework has been allowed to flex under the pressure of new demands from analysts and the advent of new financial instruments and corporate structures. Newberry also points out that those responsible for the FASB's CF were regarded as reformers, but it did not take long for the counter-revolution to gather strength. The compromises, retention of acceptable alternatives and accommodation of street numbers that resulted from the ensuing debate are characterized by Newberry in her discussion of alternative concepts of income. The outcome is a far cry from the FASB's avowed intention of developing a 'coherent system of interrelated objectives and fundamentals'.

A common question asked at the Forum was, 'what purposes are being served by the CF?' and several speakers (Newberry, Booth, Dean and Clarke) identified a degree of confusion and inconsistency in the stated 'objectives' of financial statements. Walker addressed the issue directly by analysing SAC 2, *Objectives of General Purpose Financial Reporting*. In order to assist in that analysis, he proposed four criteria which might be summed up as 'clear expression', 'consistent with commercial practice', 'internal consistency' and 'comprehensive framework'. In the light of the

other papers presented here, it is not surprising that Walker found that SAC 2 failed to meet any of the four criteria.

A further problem identified by Walker is that SAC 2 accepted that general purpose financial reports are likely to be used for a variety of purposes or, in its own terms, multiple 'objectives'. Those 'objectives' are not ranked and, as a consequence, the Statement cannot identify a clear focus for financial reports and the standards upon which they are based. This problem is exacerbated in Australia because the CF purports to cover all entities but, as Walker concluded: 'The claim that the framework is applicable to entities in the "general government sector" just lacks credibility'.

Perhaps the key element in the failure of the various standard setting bodies has been their inability to agree on, and embrace, a clearly articulated concept of measurement. All of the authors allude in some way to the critical importance of measurement in the representation of financial affairs, yet standard setters have steadfastly refused to address the issue. In proposing 'A Way Forward', Walker and Jones tackle the subject in a direct and unambiguous manner, pointing out that while SAC 4 states that both assets and liabilities can only be recognized if they can be 'measured reliably' there is no indication of what attribute is to be measured. Even the FASB's attempt to list alternative attributes is half-hearted, because, in Newberry's terms, the 'counter-reformers' responded to the CF with the FASB's Concept Statement 5 (CON5) in which several valuation bases are listed, including 'historical cost'. The listing fails to recognize that the more common practice is to record assets at 'cost less depreciation', which is neither an historical cost nor even an identifiable attribute of the asset.

Walker and Jones canvass a range of possible interpretations of 'reliable' and the attributes of both assets and liabilities that fit the stated functions (note, not 'objectives') of general purpose financial reports. They conclude with ten recommendations designed to overcome the identified deficiencies in the various extant conceptual frameworks. In particular, they recommend that SAC 3 be deleted because the qualitative characteristics listed there do not provide a framework to guide standard setters and practitioners. In response to the challenge of identifying the key attribute of assets and liabilities they point out that only the net exit values of assets and the net settlement values of liabilities meet the criteria of reliability and relevance set out in the CF.

While the primary attention of the Forum was the Australian CF, it is not possible to deal with that framework in isolation. Even without international harmonization, the Australian CF sits within an international structure under the aegis of the International Federation of Accountants (IFAC) and the (former) International Accounting Standards Committee (IASC). Nevertheless, following a series of corporate failures and professional gaffes, the movement towards international harmonization now appears unstoppable. Jones and Wolnizer examine this latest trend and its implications for Australia. This has to be seen as part of a broad reform package known as the Corporate Law Economic Reform Package (CLERP) which pre-dated the current batch of corporate failures. The latest piece of the package—CLERP 9—requires that Australia adopt international accounting

standards from January 2005. The tragedy of this demand is that Australia was in the forefront of accounting reform long before anyone had heard of Enron or WorldCom. More distressing for Australian accountants and their corporate clients is the fact that Australia had recognized the essential characteristic of accounting, which is that its function is to measure the current position and performance of entities that operate in markets. A logical consequence is that only those markets can yield the measurements necessary for accounting to carry out that function. Jones and Wolnizer leave no doubt that the adoption of international accounting standards, as they now stand, will be a retrograde step for Australia. Furthermore, the reform zeal, based on a 'principles' approach for which Australia was noted, rather than a 'rules' approach, will undoubtedly be stifled by the reactionary forces of the international accounting community.

The final two papers reproduced here are illustrative of some of the wider implications of adopting International Financial Reporting Standards. Bradbury looks at the specialized area of financial instruments. After tracing the history of the International Accounting Standards Committee's attempts to deal with financial instruments, he highlights the movement away from the traditional exchange basis of recognition towards a contract basis. This movement is obviously incompatible with components of the CF that Dean and Clarke, Booth and others have identified as being still strongly grounded in the historical cost model. But is that an example of enlightened development and a move towards recognition of current market measures, or just another 'political patch' of the kind alluded to by Booth? The dubious nature of any possible enlightenment is further illustrated by Bradbury in relation to EDIAS 39. This exposure draft requires the initial measurement of financial assets to be 'the fair value of consideration given'. Subsequently, measurement of those assets is also at 'fair value'. The implication is that there is consistency in the measurement base, but as Bradbury points out, there is a (not so) subtle difference between the measurement of the consideration given and the subsequent measurement of the exchange value of the asset. That distinction appears to have escaped the notice of the regulators! Furthermore, EDIAS 39 does not provide an explicit definition of 'fair value'. While some will conclude that, to be consistent with the intent of EDIAS 39, 'fair value' must be an exit price, others will use the lack of clarity to promote the case for deprival values or some other measure.

Bradbury also introduces a recent accounting term of dubious origin—'derecognition'. The need to 'derecognize' some assets will arise when international standards are introduced, especially as the solutions arrived at in the U.S. and the U.K. are 'very different'. This is further illustration of the complexity of accounting for financial instruments and the 'considerable diversity in practice' that will not be overcome by the CF as it now stands.

In a similar vein, but with a different orientation, Staunton looks at the focus of the CF and the need to define more clearly the scope of general purpose financial statements. The CF is made up of a number of building blocks, each supposedly dependent upon the others, yet the scope is open to a variety of interpretations. Staunton argues that 'accounting' is a generic term, although it is commonly used in relation to business. However, the Australian CF embraces government and

other not-for-profit entities, while the U.S. and U.K. versions do not. The lack of definition has also led to confusion about what Chambers referred to as 'accounting species'—each with its own 'peculiar form because it serves its own specific purpose'. Illustrations of the mixing of different species of accounting are found in the range of data found in accounting reports. These may be categorized as 'conventional', 'financial', 'economic' and 'social'. Without a better understanding of the nature of various data, and a more careful explication of their role in serving the function of accounting, Staunton argues that the CF cannot achieve its purpose.

The forum papers presented here provide clear evidence of the shortcomings of the current CF and the likely consequences of the wholesale adoption of the IAS framework in Australia (and elsewhere) in 2005. An overriding criticism that emerges from the papers is that the CF lacks focus and is incomplete. In particular, as several authors have noted, a CF that does not address the crucial question of measurement in accounting cannot provide a sound base upon which an effective structure of accounting practices can be built.

These criticisms are not new. As Dean and Clarke point out, history is repeating itself. There is little difference in the current reaction to corporate frauds and failures from those of earlier experiences. Applying political patches to a system that is inherently unstable, inconsistent and incomplete will not overcome the perceived excesses of managers or lead to a system of accounting that will service the needs of investors, employees, creditors and regulators. A CF that does no more than articulate a set of arbitrary or politically motivated rules cannot and will not serve the legitimate interests of the stakeholders of business and government enterprises. As the Forum on the Conceptual Framework illustrated in a host of different ways, the foundations of a sound conceptual framework of accounting can only be found in the everyday affairs of commerce. In that environment, money is the medium of exchange and the unit of measurement of the financial characteristics of goods and services, of obligations and of benefits received. If the function of accounting is to serve the needs of those who transact in markets, then that is where the foundations of a conceptual framework must be found.

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An Evolving Conceptual Framework?

The history of the conceptual framework (CF) exercise indicates more a search for a rationale for current practice than a re-affirmation of the legal, social and economic (especially financial) framework within which accounting is to function, and the necessary shape of a compatible system of accounting. Interestingly, issues similar to those presaging the formation of the American Institute of Certified Public Accountants' Wheat and Trueblood Committees (antecedents of the formation of the Financial Accounting Standards Board in 1973 and its CF project in 1976) are evident again today. Such events led to a reconsideration of the effectiveness of CFs in their current form as 'constitutions'. Arguably, the framework of concepts underpinning ordinary, everyday commerce *is* the CF of accounting. The quest for a unique constitution-based CF of accounting, independent of observables, has been misplaced, insofar it is unnecessary. Arguably, if more attention had been given to the function of accounting the futility of the CF exercise could have been avoided.

Key Words: Accounting; Conceptual framework, Constitution; Evolution; Function.

A SCEPTICAL VIEW OF ACCOUNTANTS' RESPONSES TO CRISES FACING THE PROFESSION

Whereas the talk of *a* conceptual framework (CF) for accounting is something of a post-World War II phenomenon, the groundswell for a definition of the underpinnings of financial reporting had its gestation during the previous forty years.

In its official mode, the search for *a* CF emerged in the early 1970s. This followed the 'political crisis' related to the setting of accounting principles by the U.S. Accounting Principles Board (APB), the accounting irregularities with the conglomerate merger movement and several large, unexpected corporate collapses including those of Penn Central, National Student Marketing and Equity Funding. Those events presaged the U.S. Congressional interest that prompted the Moss (1976) and Metcalf (1977) inquiries. Nearly thirty years on there is a striking similarity with the possible effective demise of national standards setting bodies (e.g., the Australian Accounting Standards Board [AASB] and the U.S.A.'s Financial Accounting Standards Board [FASB]) and their replacement with the International Accounting Standards Board.

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But the anxiety prompting the 1970s interest differed little from earlier crises as accounting theorists and practitioners struggled during the 1920s to cope with the financial statement distortions and anomalies of the kind that occupied the thinking of Paton, Boer, Sweeney, Wasserman and the like (see Clarke, 1982; Tweedie and Whittington, 1984). Nor did it differ substantially from the underlying anxiety caused in the U.K. by the accounting anomalies exhibited in the Royal Mail's financials or the discovery after the 1929 crash that the accounts of many highly prized companies (like Insull Utility Investments and Kreuger & Toll) were 'full of water' (Federal Trade Commission, 1935; McDonald, 1962).

Arguably, the theses coursing through Paton's *Accounting Theory* (1922), Canning's *The Economics of Accountancy* (1929), the coalescing of Sweeney's 1920s and early 1930s pieces in his *Stabilized Accounting* (1936), G.O. May's *Twenty-Five Years of Accounting Responsibility* (1964), the American Accounting Association's (AAA) *A Tentative Statement of Accounting Principles* (1936), the American Institute of Accountants' (AIA) *Statement of Accounting Principles* (1938), Paton and Littleton's (1940) *An Introduction to Corporate Accounting Standards*, Grady's *Inventory of Generally Accepted Accounting Principles* (1965) and (say) the AAA's *A Statement of Basic Accounting Theory* (1966) and *Statement of Theory and Theory Acceptance* (1977) were early, albeit partial and rudimentary, incursions leading to what now attracts the label CF.

We take it that by CF is meant the underpinning of a *general theory*. Extracts drawn from sources discussing CFs reveal a distinction between the sources of those relating to the underpinnings of ideas in the physical sciences—*observations* of experienced phenomena—and those underscoring what are perceived to be the fundamentals in the social sciences—*cerebral ruminations*. Chambers' (1995) *An Accounting Thesaurus* contains full reference details to the following quotations.

In respect to the former observations we might note Whitehead (1933/1948, p. 183):

> Our coordinated knowledge . . . is formed by two orders of experience . . . direct immediate discriminations of particular observations . . . [and] our general way of perceiving the universe'

Homans and Curtis (1934/1970, p. 27):

> The first conceptual scheme for all the sciences is the common-sense world . . . is a frame . . . somehow constructed by the mind, by which the mind classifies sense experiences;

Bohr (1958/1961, p. 67):

> When speaking of a conceptual framework, we refer merely to unambiguous logical representation of the relation between experiences;

Taylor (1970, p. 53):

> in the case of scientific explanation, the norm is discovered, not given . . . only . . . identified and characterized in a certain way that the phenomena can be exhibited as all being variations in the same fundamental dimensions;

and Hanson (1972, p. 46):

> Copernicus' heliocentric alternative . . . [offered] a theory [of] . . . a physical account of what sort of things such objects [as planets] really were.

In contrast, the experiential imperative has not been perceived as such a critical element in the development of an accounting framework. Indeed, one might take it that the accounting perception of the developmental sequence is the reverse. As Vatter (1947, p. 1) explains, accounting 'knowledge is oriented . . . a pattern of ideas is brought together to form a consistent whole or frame of reference to which is related the operational content of that field'. No mention of observations there—only a consistent set of ideas, presumably whether supported or devoid of what can be observed or experienced being of little concern.

In that respect Vatter's focus is representative of *accounting* views on the matter. Storey (1964, p. 60) explained that:

> principles distilled from practice are . . . meaningless unless and until a conceptual framework is developed which gives meaning to the procedures . . . Building a conceptual framework . . . will be at once both the reasoning underlying the procedures and a standard by which the procedures are judged in a long run process.

According to Stamp (1970d, p. 102), rather than providing information *generally* relevant to *all*, such a framework 'provides measurements relevant to the observed needs of users' which Feller (1974, p. 396) observes is:

> arguably individually relevant to them . . . [and] guides the selection of events to be accounted for.

And the FASB notes (1976a, p. 2), the framework entails '*fundamentals that can lead to consistent standards*'.

Again, drawing on Chambers' *Thesaurus* (1995), it is not surprising against that background that Rappaport (1977), Stamp, (1970d), Hopwood and Bromwich, (1984) and Weil (1984) appear resigned to the futility of generating an algorithm of concepts that will solve every accounting conflict. Yet in the arguably no less complex setting of the physical sciences and the social sciences other than accounting, there is a strong pervasive theme that a functional CF is to be reflective of a 'system of ideas' (Whitehead, 1933/1948), experiential based 'common-sense' (Homans and Curtis, 1934/1970), 'experiences' (Bohr, 1958/1961), 'facts' (Conant, 1964), abstraction of the 'real world' (Caws, 1965) and 'fundamental dimensions' (Hanson, 1972).

Many of those seeking a CF for accounting have seemed compelled to *create*, *invent*, *define*, when what is observable is not to their liking, or is not observable but would be a good 'fit' if it were. Elsewhere, driven by corroborable observations of the way things are, the 'stuff' of the real world rather than inventions of the mind are to the fore. Interestingly, despair enters Chambers' (1995) selected observations only when CFs are discussed in the context of accounting. Set within his perception that the function of accounting was to provide financial information on the wealth and progress of companies, the observable legal, social and economic,

especially financial, realities in which a serviceable accounting must function, ably described and delineated its necessary CF. There was no need for inventions! No need for descriptions of the setting in which business operates to be other than what every individual knows it to be. For there can be little serious dispute that the functionality of accounting depends upon its capacity to provide financial information which is consistent with: the legal constraints on business affairs; the social norms that drive an orderly, humane commercial society. Further, accounting must conform to the economic facets of commercial affairs in general and the everyday usage of money and the making of monetary calculations.

Perhaps that has been too simple an approach for the members of the accounting profession. The penchant for setting accounting outside the everyday commercial experiences of accountants is perceived by some to be a conspiracy to elevate its claim to the highest level of professional expertise—to having its own unique *differentia specifica.* Perhaps the muddled thinking of accountants arose primarily from looking outside everyday experience for the underpinnings of accounting's place in the scheme of things commercial. The questionable practices such thinking spawned have forced the profession to defend almost continuously for over eighty years.

When Heat Is Turned up—Now and in the Past

In that setting it is instructive to contemplate the similarities of current reform proposals with the tactics of the profession and regulators in the 1930s and 1970s. The promise to 'clean up accounting's act' was to be achieved by more clearly articulating the fundamental ideas—'the search for the principles'—underpinning accounting practices and financial reporting disclosure and monitoring mechanisms. On each occasion the drive appears to be to protect the essentially co-regulatory reporting mechanism with the profession's significant influence being retained.

Under scathing attack from the likes of Ferdinand Pecora (1939), George O. May's professional oratory cut the accounting profession in for its share of Roosevelt's New Deal measures to put 'truth into securities'—the ultimate of corporate governance sentiment—by means of the 1933 and 1934 legislation setting up the Securities and Exchange Commission. The profession had established its self-regulatory status and the importance of being a major player in the emerging co-regulatory regime (Chatov, 1975). But the threat of government intervention were the profession to fail to inject accounting statements with Roosevelt's 'truth' nurtured attempts to articulate the main *principles* underpinning accounting. The American Accounting Association's 1936 *Accounting Principles Underlying Corporate Financial Statements*, and Sanders, Hatfield and Moore's 1938 *A Statement of Accounting Principles* (sponsored by the AIA) are indicative of the perceived need for it to be seen that the *thinkers* of the accounting discipline were as much on the job as its practitioners. That set a pattern in which the practitioner and academic arms of the profession have independently pursued the high ground of accounting principles. Examples are the specification of accounting principles by the AAA in its 1957 *Accounting and Reporting Standards for Corporate Financial Statements*, opinions and statements emerging from the AICPA's Accounting Principles Board

after its formation in 1959, the AICPA's Accounting Research Studies of accounting issues in the 1960s, the AAA's *Statement of Basic Accounting Theory* (1966) and the like, culminating in the creation of the FASB in 1973 to articulate formally the fundamental principles through a series of profession endorsed accounting standards. Somewhere the specification of principles became blurred in the mire of rules for their implementation. The FASB's CF project was conceived to bring the matters back on track.

Similar to the sentiment that drove the profession's defence of its primarily self-regulatory regime in the 1930s, the impact of faulty accounting has fuelled measures to purge corporate activity of its persistent ills in the new millennium. The corporate governance push now drives the current debate, emphasizing the need for principles- versus rules-based accounting standards. Now, in the U.S.A. and elsewhere (e.g., Australia), there is seemingly general support for the types of corporate governance mechanisms put forward in the 2002 Sarbanes-Oxley Act. The requirement that CFOs and CEOs attest to the truth of the data contained in financial statements has comparable requirements in Australia's proposed CLERP 9. Underpinning the discussion surrounding those legislative reforms is an expectation that accounting is to be a principles-based rather than a rules-based regime. Yet, what those 'principles' ought to be and any distinction with 'rules' appears as contestable now as it was in the 1930s (Chambers, 1964).

That background invites the implication that the entire CF exercise in accounting has been more the profession's response to stave off losing its significant role in the co-regulatory reporting regime than a serious attempt to clean up the system of accounting. That view is supported by the contemporary revelations regarding the reported alleged 'ganging-up' on the Andersen firm to make it the scapegoat for the U.S. accounting and auditing scandals as part of the profession's defence of its power base on Capitol Hill.[1]

It is instructive to note that in the past the profession's resolve to define the underpinnings of conventional practice—to search for 'principles'—has diminished once the threat of unwelcome external intervention in its business dissipated (Chatov, 1975; Clarke *et al.*, 2003, esp. chaps 2, 3, 6, 10). Had the profession exhibited serious resolve, one might have expected the 1970s–80s U.S. CF exercise and, say, the development of the Australian Statements of Accounting Concepts, to have not been somewhat put on hold. That delay is evidenced by the lengthy hiatus between the early concepts statements and the measurement concept statements (see Walker and Jones, 2003).

In the wake of the new millennium wave of corporate collapses and the so-called *accounting irregularities* in the U.S. in particular, a new-found sense of urgency has emerged. Under the banner of a general push for enhanced corporate governance, corporate financial reporting and auditing have been scrutinized again, with an implied intent to clean them up. But although the rhetoric has taken on the mantle

[1] As reported in *Washington Post*, 5 May 2002. One might contrast this with the 1970s, when one of the then Big Eight (Peat Marwick Mitchell) was under investigation following a series of large corporate dilemmas (see SEC, 1975).

of serious reform, the *capitalization-of-expenditure-based system* that underpins conventional historical cost-based accounting has remained virtually untouched. Instead of the fundamental underpinnings of accounting and reporting being worked over, it is the standard setting and monitoring *infrastructure* of the system that is in the sights of most of the governance measures being promoted (e.g., the 2001–02 official reports, the *Ramsay Report*, the JPCAA *Report 391*, CPA Australia's *The Way Ahead—a New Financial Reporting Framework* and the self-regulatory oversight proposals of the remaining Big Four firms).

There is no evidence, for example, that the 'principles' underpinning Enron's front-end-loading of 'profits' expected from its energy futures; WorldCom's alleged capitalization of operating expenses; HIH's capitalization of myriad expenses; Waste Management's revision of its truck fleet amortization practices; or HIH's, One.Tel's, Sunbeam's or Xerox's revenue recognition practices will be raked over, and if found wanting, expunged from conventional practices. In contrast, the nature of the primarily infrastructure-oriented reforms is evidence that there may be a more definitive specification of what effectively amounts to the rules governing when these practices may be employed. It is as if the principles underpinning conventional practice are sound in terms of both financial calculation and the reporting of financial outcomes, and that only their application was at fault.

The development of an accounting CF has the appearance of being more directed at how accountants use the current practices than whether the practices are serviceable mechanisms for showing the wealth and progress of companies. The risk is that the current brouhaha over, and responses to, the accounting elements of, say, the HIH and One.Tel failures and the post-2000 U.S. *accounting scandals*—invoking a stated desire to have 'principles-based' rather 'rules-based' standards (SEC *Staff Study*, 2003)—will be mistaken for a resurrection of the CF exercises and the resolution of a workable framework.

THE CURRENT STATE OF PLAY[2]

The new millennium presaged the end of an eighteen-year bull market—one of the longest of the twentieth century—with the passing of the dot.com and telco hype, and the emergence of significant turbulence, loss of confidence on corporate financial markets generally, and unease with corporate governance in particular. The Long Term Capital Market rise and fall in 1998, the demise of many dot.coms in early 2000, as well as the financial difficulties experienced by several large, old and new economy companies, like HIH, Harris Scarfe, One.Tel, Pasminco and Centaur in Australia, Enron and WorldCom, Waste Management, Qwest, Freddie Mac, Ahold, and Adelphia Communications in the U.S. characterize the setting.

Arguably the major financial markets may be experiencing turbulence of an extended nature. Mutual fund and pension investment firms retreated from investing in the stock market after May 2000 and moved their funds into cash and other perceived 'safer investments'. This caused substantial and involuntary wealth

[2] The following subsection draws on the Foreword to Clarke *et al.* (2003).

redistributions and injected increased volatility in the stock market indices worldwide (Cassidy, 2002).

Clarke *et al.* (2003) note that reduced collateral has placed pressure on those who had borrowed to sustain their share investments. Concerns exist that the declines in the stock market could spill over into the real economy and may cause the oft-disputed U.S. speculative bubble to burst. This would inevitably affect other stock markets, such as Australia's. Such implied 'effects' rebuke the myth that market declines produce only paper losses.

World capital markets' participants, academics and regulators alike had eulogized throughout the 1990s the benefits of the newly coined 'new economy', and associated new methods of valuing companies as P/E multiples reached peaks seen ominously on only a few previous occasions—the twentieth-century 'market bubbles' of 1929, 1969 and 1987 (Fischer, 1996; Kindelberger, 1997).

As with those previous booms, U.S. Federal Reserve Chair Greenspan's (1996) observation of 'irrational exuberance' appeared to have been partly responsible for what Kenneth Galbraith (1971, p. 152), referring to the 1920s boom period, described as the 'inventory of undiscovered embezzlement'. Those 'in the know' had rejected the claims that the end of the second millennium would prove to be different. This was no financial bubble. The unbridled optimism of the capacity for expansion in the U.S. broadband Internet access fed on the idea that technological developments, the impact of the baby-boomers and the information revolution had created new ways of creating and measuring sustainable shareholder value (see Jacobs, 1999; Jeter, 2003; Malik, 2003). Recurrent, telltale symptoms of macro financial problems, linked to excessive merger and acquisition activity (often heavily debt financed) that was near its zenith, were ignored. Perhaps somewhat remarkably, this was just as had occurred in episodes like Holland's 1600s Tulipmania, the U.K.'s 1700s South Sea Bubble, the nineteenth-century railway manias, and the 1920s investment boom (everywhere) presaging the 1929 Great Depression.

But for many, events on capital markets in April/May 2000 portending the crash of the dot.coms were to change the market's euphoria. Share price indices for technology stocks tumbled 40, 50, 60 per cent across various capital markets, as billions of dollars were wiped off corporate market capitalizations, especially off those eulogized new economy companies. Three years on, those indices remain much lower than the 2000 levels. Dot.coms became part of the tech-wreck flotsam as many either went into liquidation or were taken over by the surviving 'old economy' companies. Within a year or two of the new millennium the financial meltdown in the main stockmarkets would subsequently affect many old-economy, merger-driven conglomerates like Enron, Vivendi, WorldCom, Waste Management, Global Crossing and others. As before, few appear to have seen the similarities between the latest crises and those of preceding generations. The latest boom/bust era has generated new labels, like 'new economy companies', and rather than creative accounting we now hear of 'aggressive' accounting and 'pro forma earnings' and the ubiquitous 'earnings management'. From an accounting and financial management perspective it was merely more of the same. The underpinning framework of rules based on faulty ideas remains. Loose accounting and an inadequately

informed capital market have combined to produce a lack of investor confidence in the market and, predictably, the bears took over from the bulls, although by late 2003 there were signs that the bulls may be back. The 'old' cries for better quality, more 'transparent' accounting have re-emerged. Clearly these events demonstrate that there is nothing new under the sun. Disputed claims that some countries had better accounting standards, or principles-based rather than a rules-based systems, have enjoyed popular currency (Schipper, 2003; SEC Study, 2003). Much of this was ill-informed, without foundation (Clarke, *et al.*, 2003).

There is evidence that perceived poor quality financial reporting is a major factor in the continued criticism of accounting and auditing practices following *large*, more often than not *unexpected*, corporate collapses. For whereas looming failure might well have been suspected in many instances, as perhaps indicated by continually falling share prices that reflect what would be the likely return to shareholders and creditors, the speed with which entire corporate structures were dismantled clearly was not. What is occurring in the first few years of the new millennium indicates that the *unexpected* nature of some of the failures, the speed at which entire corporate structures are demolished without time for remedial action, turnaround, and the implications for accounting have been insufficiently heeded. A progressive failure of a company may well bring about a complete breakdown of its structure too, but without the element of surprise. Company failures of that variety are not on our radar as much as how accounting data appear often to mask any trends that would indicate impending failure. There are not any sound economic reasons why any inefficient corporate use of resources should be perpetuated. Arguably, firms not providing an adequate return commensurate with the attendant risk should be put to rest and the resources put to better use elsewhere. Accounting as an instrumentation has a unique role to play in this process. It is the lynchpin of corporate governance.

FRAMEWORK FUNDAMENTALS?

The importance of examining the 'intellectual foundations of accounting' was highlighted by a recent U.S. academic forum on that topic, culminating in the reproduction of papers in the AAA's *Accounting Horizons*, under the title, 'Commentary—Some Thoughts on the Intellectual Foundations of Accounting' (June 2002, pp. 157–68). The 'Commentary' acknowledges there is little reference to non-U.S. works contributing to the debate. That omission is redressed here. In the *Accounting Horizons* commentary, reference is made to Joel Demski's 2001 Presidential address to the American Accounting Association (see Demski *et al.*, 2002) in which he observes 'a quiet malaise' in the accounting academy with symptoms of 'flat progresses' and the reappearance of 'tribal tendencies' leading him to conclude that there was a need for 'reinvigorating accounting scholarship'—arguably by going back to the discipline's roots—perhaps by *forging* a CF. Perhaps not!

Others have suggested that there is a need to consider whether a 'rules-based' versus a 'principles-based' standard setting regime should apply (Schipper, 2003; SEC, 2003). But this would seem to us to be venturing back to an existing intellectual

groove—to the familiar framework debate. Chambers (1996), Gore (1993), Solomons (1986), Ijiri (1982) and Peasnell (1982) provide useful background in this context. Generally, those contributions provide an account of the 'quest for a framework' as a constitution. This aspect will not be canvassed here other than by way of a brief summary below.[3]

Chambers (1996, p. 119) sets the groundwork for our analysis of whether there is an *evolving* CF in accounting. Drawing on a long held view of accounting being a technology—examinable like any scientifically grounded artifice, he observed:

> Frameworks for thinking about experiences and occurrences have long been the basis of organized knowledge and technology. They consist of sets of descriptive statements about what commonly occurs and what is therefore possible. The term CF has been given an entirely different interpretation in accounting—a 'constitution', prescribing the nature of accounting and its products.

As noted in a previous section, Chambers' *Thesaurus* (1995) provides examples from many other authors with similar views about what a CF should entail.

Although most accountants would deny that accounting methods and procedures 'are but senseless rituals' devoid of 'reason or substance' (Vatter, 1947, p. 1), the recurrent criticisms and political machinations throughout most of the twentieth century resulted in an acknowledgment of perceived weaknesses and anomalies in the existing hybrid accounting model (MacNeal, 1939; Edwards and Bell, 1961; Chambers, 1966; Sterling, 1970), albeit primarily a capitalization of expenditures model. This necessitated the development of a 'conceptual structure'—a structure which William Vatter (1947, p. 1) describes as 'a pattern of ideas brought together to form a consistent whole or a frame of reference to which is related the operational content of that field'—views consistent with those of Chambers and others mentioned previously.

For over eighty years in Anglo-American countries that need has been underpinned by criticisms of various accounting practices, including those of Paton (1922), Canning (1929), MacNeal (1939), Spacek (1959), Chambers (1966) and Sterling (1970). Sweeney in his *Stabilized Accounting* (1936) appositely captured the problems with extant accounting with his trichotomy that accounting information was (a) irrelevant for decision making, (b) based on mathematically unsound principles and (c) incomplete. Then, the Financial Accounting Standards Board (FASB, 1976) elaborated on the factors eroding the credibility of corporate financial reporting:

- acceptability of more than one method of accounting for the same facts;
- ready adoption of less conservative accounting methods;
- anticipation of profit in long-term projects;
- using reserves for the artificial smoothing of fluctuations in earnings;
- failure of financial statements to warn of impending liquidity problems;
- inconsistencies in the capitalization of certain expenditure;

[3] Some material in this subsection is reproduced from chapter 3, 'Accounting and Financial Reporting: An Evolving Framework', of *Company Financial Statements*, Butterworths, 1988, which was prepared by the authors and Russell Craig.

- over-optimistic estimates of recoverability;
- unjustified non-disclosure of departures from standards or other unfavourable information, on the grounds of materiality; and
- emphasis on form rather than substance.

The FASB (1976, pp. 4–5) concluded that such criticisms resulted in scepticism concerning financial reporting, which in turn injected the capital market with uncertainties and imperfections. Those assessments enjoy a currency in the new millennium as the alleged 'accounting and auditing irregularities' (typified by the revelations at [say] Enron in the U.S. and HIH in Australia) are being accused in the financial press of causing market participants worldwide to reassess the serviceability of accounting data (Clarke *et al.*, 2003, chap. 1).

Following in the genre of Zeff's (1971) *Forging Accounting Principles in Five Countries*, Peasnell (1982) and Gore (1993) examined the political intrigues inducing the declarations by many in the accounting profession that a CF was a prius. A search for a research-driven approach to standards setting was deemed critical in order to gain an acceptable set of accounting principles or standards. Newberry (2003) notes that when 'the Financial Accounting Standards Board [FASB] embarked on its conceptual framework [CF] project in 1976, it anticipated that the CF would provide an authoritative and "coherent system of interrelated objectives and fundamentals" (Storey and Storey, 1998, p. 85, quoting CON6)'.

The lack of an acceptable framework to provide the logical justification for the accounting standards was seen as the *cause* of first the extant 'principles' and then the 'standards' being merely the assertions of the professional associations. Thus, it was argued that the accounting standards have not been recognized or accepted as definitive truths derived through a process of reasoning from known and agreed basic concepts. Criticism has been particularly trenchant on those occasions when an authoritative accounting body has had to revise drastically the requirements of a previously promulgated accounting standard. Consider some examples. The U.S. Senate's response to the accounting profession's statements on the investment tax credit problem (see Zeff, 1971, p. 221) and the FASB's dilemma on the subject of accounting for foreign currencies are illustrative of that. In Australia in the early 1970s several State Corporate Affairs Commissioners intervened in the standard setting process on the issues of tax effect accounting and depreciation on buildings. The Victorian Corporate Affairs Commissioner's intervention in 1974 led to the accounting profession issuing a revised tax effect accounting standard in 1976 (ASRC, 1978).

Regarding the set of professional rules in the 1980s, one of the then Big Nine accounting firms commented:

> The governing rules today have evolved largely through the experiences of accountants in dealing with uncertainties in identifying, analyzing and reporting different kinds of transactions as they have occurred. Precedents and analogies have played a large part. So have unfortunate experiences, which have tended to make some accountants a cagey, difficult-to-convince lot. Those involved in auditing, in particular, have encouraged rules based on hard, verifiable evidence. The body of today's accounting rules, therefore, is not a neatly designed, tightly constructed whole. The rules are sometimes inconsistent, not being part

> of a clear plan that logically leads users to similar conclusions when presented with comparable facts. The accounting profession needs a goal. (Arthur Andersen & Co., 1984, pp. 6–7)

Such illogicalities had led Chambers to lament over twenty years earlier that

> if rules are not formulated with reference to general laws or ideas of some kind then it is quite pointless to speak of rules and or to write textbooks about them. It is largely because the tests of 'utilitarian-ness' and the general ideas or laws which underlie accounting rules have not been made explicit that the body of accounting practices now employed contains so many divergent and inconsistent rules ... Recognition of this has given rise to the belief that some rigorous and extensive examination is necessary and to demands that such an examination be undertaken. (Chambers, 1963, pp. 3, 4)

But the regulators had a different view. Quasi-legislative recognition of the need for a constitution-based CF in Australia is noted by Walker: (1987, p. 277) 'The ASRB's [Accounting Standards Review Board's] brief was "to foster the development of a 'conceptual framework' of accounting ... [because without it] it would be difficult to ensure that approved accounting standards 'were logically well developed and consistent' "'.

Financial Statements and Financial Reporting Distinguished

Although it is now fashionable to talk in terms of the 'objectives' of accounting and the 'objectives' of published financial statements, Chambers (1976) claimed this looseness has itself created problems. He suggested that it is preferable to speak of the functions rather than the 'objectives' of financial statements, a matter pursued by Walker (2003) and below. To date the profession rejects this line of reasoning and reference is still made to accounting objectives in the professional literature. Perhaps herein lies one reason why, when the urge to discover the underpinning framework has existed, it has faltered well short of its goal.

When the FASB was formed in 1973 it immediately commenced work on the development of a CF. The Appendix below contains some of the myriad professional publications that subsequently discussed the CF (Staunton, 2003, explores the pyramid structures of the ensuing framework).

Importantly, the FASB was quick to distinguish between 'financial reporting' and 'financial statements'. 'Financial reporting' is regarded by the board as a term broader in scope than 'financial statements'. While conceding that 'financial reporting' and 'financial statements' have essentially the same 'objectives', the FASB agree that reporting may involve the provision of useful information by means other than the preparation of financial statements. Thus, although financial statements are recognized as a central feature of financial reporting, the latter may include other means of communicating information about an enterprise such as managers' forecasts or other descriptions of plans or expectations.

INHERENT LIMITATIONS OF FINANCIAL STATEMENTS

Inherent limitations are evident at macro and micro levels. Regarding the former, one consequence of the boom and bust economic cycles over the past two centuries

has been the repeated questioning of the adequacy of accounting information in mitigating the extent of these cycles. One commentator to discuss this linkage was Haberler in *Prosperity and Depression* (1937).

Illustrative of micro limitations are attempts at distress prediction. Often when a large company fails, or more importantly is placed under administration unexpectedly after the release of 'clean' financial statements, the role of the auditor and the function of financial statements have become the subject of inquiry. Similar inquiries have recurred whenever Western capitalist systems have been placed under economic strain (Clarke *et al.*, 2003). An early instance of such questioning occurred after the Great Depression, particularly in the United States. Following the identification of apparent abuses by the directors of banks and other public companies, the Congress instituted inquiries (subsequently referred to as the Pecora Hearings) and the integrity of the financial markets, conflicts of interest, accountants and accounting practices were major issues, just as they are today. Among other things, Pecora and the other investigators sought a response from the accounting profession on the apparent inadequacy of information contained in financial statements and George O. May, the profession's spokesperson, provided the reply which has been echoed in more recent professional reports (e.g., the 1978 Cohen Commission and the 1987 Treadway Commission). The title of May's reply captured the essence of his thoughts: 'The Limitation of Accounts' (1932). His apologia had a ring familiar to the modern day 'expectations gap' mantra. May had stressed that the problem arose because of unrealistic expectations on the part of users of accounts regarding the information content of financial statements. This interpretation of the problem led to the promotion of the bizarre solution of educating users in the limitations of information contained in financial statements! One suggestion was that the pro-forma wording in the auditor's opinion should be changed to highlight the limitations of the opinion (Treadway, 1987).

It is our view that these limitations arose because each of the required financial statements is partly a statement of fact and partly an expression of opinion. Moreover, in so far as they are statements of fact, they record facts which depend, to a material extent, upon decisions of the authority responsible for presenting the statements. In addition, the facts presented in a statement of financial position and statement of financial performance are necessarily limited to those which can be *measured* in monetary terms and are ascertained in conformity with accepted conventions and accounting standards. The conventions of accounting and their application often result in the information in conventionally prepared financial statements being misunderstood.

The gap between users' expectations and the reality contained in financial statements led to a crisis in the United States in the late 1960s and early 1970s. It resulted in the profession forming the so-called Schism committees. Their frames of reference were to examine the widening gaps between the expectations of users and the reality of what was included in financial statements and what was implied by the wording in an auditor's report. The response of these committee deliberations was a reaffirmation of George O. May's ideas. The public needed to be educated about the limitations of information in company accounts!

Macro and micro limitations are evident also in conventional accounting's inability to account for inflation. In 1936 Sweeney had recognized that historical cost accounting was incomplete because it failed to account for all value changes, specifically those due to changes in the 'value' of money. Others, such as Middleditch (1918), Paton and Stevenson (1918), Bauer (1919), Paton (1920, 1922) had also noted this deficiency and had suggested forms of inflation accounting to supplement the existing historical cost accounts. Professional proposals have invariably suggested supplementary financial statements, adjusted to show the effects of changes in the purchasing power of the monetary unit, as a means of overcoming distortions in historical accounting data resulting from the continuous inflation experienced in the world's major economic nations (see Clarke, 1982, and Tweedie and Whittington, 1984, for a detailed analysis of professional attempts at incorporating in accounts the effects of inflation from 1963 to 1980).

In the early 1980s the Australian professional accounting bodies issued Statement of Accounting Practice SAP1, *Current Cost Accounting*, strongly recommending that all entities publish current cost financial statements as a supplement to the conventional statements. This would include what we now term a statement of performance, a statement of financial position and a statement of change in shareholders' equity. This has been retained notwithstanding the move away generally (worldwide) from prescription of any form of inflation accounting by the profession (see Pong and Whittington, 1996).

There are other areas where inherent limitations exist. In the published financial statements of companies, opinion and financial policy exercise a noticeable influence. Under conventional accounting the preparation of a performance statement and a statement of financial position entails a series of apportionments of income and expenditure. Income deemed to have been earned during a given accounting period, and expenditure deemed to have been exhausted in the earning of that income, are brought together, compared, or 'matched', in the performance statements for that period. Income received, but not yet earned, and expenditure incurred, but not yet exhausted, are carried forward in the statement of financial position, with the intention that they shall be brought into the performance statements of future periods. These apportionments are based on certain well-established (though generally unchallenged) rules, and hitherto orthodox conventions and doctrines of accounting. In the formulation of accounting conventions and doctrines, conservatism (in its derived sense of caution) has been the overriding consideration.

In some cases, the application of conservative accounting conventions to known facts has been carried to extreme lengths in the interest of financial prudence. Curiously, the *financial virtue* that has been perceived to reside in the deliberate understatement of financial outcomes has been denied in respect of deliberate overstatements of them. Performance statements and statements of financial position are conditioned by accounting convention, opinion and financial policy. Profit disclosed by a performance statement is to be interpreted in the light of accounting precepts of profit determination and considered an expression of opinions formed with special regard for a perverted notion of financial prudence. Furthermore, the 'assets' shown in the statement of financial position must be understood as being

'assets' in a specialized accounting sense—such as rights to future economic benefits, hence capitalized expenditures. A detailed analysis of the implications of these conventions and doctrines appears in Chambers (1964). Importantly, he notes that these 'rules, doctrines and conventions' are often described inappropriately as 'principles'.

THE FRUITLESS AND UNNECESSARY *SEARCH* FOR *THE* CF

It has been suggested that developments in Australian CF thinking have mirrored those in the U.S. (e.g., Jones and Wolnizer, 2003; Walker and Jones, 2003). Following the criticisms noted above of the capitalization-of-expenditure-based system and proposed alternative accounting systems by academics (e.g., Matthews and Grant, 1958; Chambers, 1966) and a brief reference to the need for a framework when the Australian Accounting Research Foundation emerged in 1967, a virtual hiatus occurred until the Australian Accounting Research Foundation (AARF) was restructured in 1979 and the CF project was again placed on the agenda. Of course by that time the U.S. CF project had begun.

Against that background the AARF described a 'Conceptual Framework' as a 'set of interrelated concepts which will define the nature, subject, purpose and broad content of financial reporting. It will be an explicit rendition of the thinking, which is governing the decision making of the AASB and Public Sector Accounting Standards Board when they set down requirements, including accounting standards' (AARF Series No. 1: AICPA, 1987). This description is similar to that used by the FASB in its CF exercise and several articles in this forum explore those developments.

Figure 1 of Staunton (2003, which appeared in ASRB Release 100) is a diagrammatic representation of the tentative building blocks of this project. While similar to diagrams produced by the FASB as part of its CF project, it needs to be recognized that in the U.S.A. the project has been undertaken separately by the appropriate public and private sector bodies. In all such exercises, however, the critical feature was that they entailed a constitution of related elements.

Consider AARF's four Statement of Accounting Concepts (SACs) which draw upon levels 2, 3 and 4 of the 1990 Figure 1 Framework: SAC 1, *Definition of the Reporting Entity* (AARF, 1990a), SAC 2, *Objective of General Purpose Financial Reporting* (AARF, 1990b), SAC 3, *Qualitative Characteristics of Financial Information* (AARF, 1990c), and SAC 4, *Definition and Recognition of the Elements of Financial Statements* (AARF, 1992). SAC 4 attracted considerable complaint and criticism, causing it to be withdrawn and then to be re-released in amended form. Walker and Jones (2003) recount that, while the *measurement project* seems to have fallen into a hole in Australia, the FASB introduced its measurement concept statement, FAC 7, in 2000. It will be of interest to see what emerges post 2005 in an International Financial Reporting Standards regime.

RECOMMENDATION: WHITHER A UNIQUE ACCOUNTING CF?

The quest for a CF has been motivated repeatedly by the complaint and criticism over many decades of the inherent limitations in conventional accounting when

companies fail unexpectedly and their audited financials are found to have been misleading, and during boom/bust economic conditions and inflationary spirals when accounting is found to provide poor signals. In all cases the conventional, primarily capitalization-of-expenditure-based accounting system fails to provide data indicative of entities' wealth and their progress.

With that backdrop the CF exercises have been shown to have engaged more in a search for explanations of the ideas underpinning conventional practice than the articulation of the concepts with which accounting data must conform if they are to be serviceable for determining the wealth and progress of entities and for deriving their salient financial characteristics.

In this respect the CF exercises do not represent an *evolution*, at least not in that word's usual connotation of ensuring the survival of the fittest. For many of the current practices that are in accord with those frameworks produce data that are no more serviceable than the data of past decades. As several articles in this issue acknowledge, some practices produce data demonstrably inferior to those preceding them.

Much that is written about the fundamentals of accounting is framed as if accounting had a function outside of the commercial environment in which its products provide a service. The legal, social and economic concepts underpinning the workings of the commercial setting in which accounting functions are well settled, real-world phenomena, researched, documented and, the evidence suggests, universally understood. It is absurd for the underlying concepts of accounting to contradict or otherwise fail to conform to what is known and understood of those matters by the community that accounting serves.

It is reasonable to contemplate whether there is a *unique CF of accounting*. That the projects have, indeed, stalled and frustration has out-gunned progress, that agreement on key issues has been so elusive, may well be the consequence of searching for what does not exist.

Our proposition is that the framework of legal, social and economic concepts underpinning ordinary, everyday commerce *is* the CF of accounting. They are reflections of the real world setting in which accounting functions—Whitehead's 'system of ideas', Homan and Curtis' 'common-sense', Conant's 'facts' and Taylor's 'real world dimensions'.

A basic assumption underpins our conclusion—that the function of accounting is to provide financial information about the wealth and progress of business entities. That assumption seems to have passed by default in the CF debate. This is, possibly, because in various guises that is the agreed function of accounting. It is repeated in virtually every accounting textbook, it courses through virtually every description of the uses of accounting data in the institutional, academic and practitioner literature, and it underpins legislation prescribing accounting practice. Accounting has to fulfil that function in harmony with the readily observable and understood legal, social and economic characterizations of the ordinary, everyday, commercial setting. Accounting's primary function is the key to its CF.

The quest for a constitution-based CF of accounting has been fruitless, except insofar as it has exposed the vagaries of a profession pursuing status by offloading

its legitimate inheritance and replacing it with make-believe about the same matters. The CF exercise has been a distraction. Arguably, were greater attention to have been given to the function of accounting, the conceptual framework debate would not have arisen in its present form.

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APPENDIX

The following is a sample list of publications that may be regarded as important landmarks in the evolution of a stated conceptual framework of accounting in Australia and the U.S.A. up to the AARF SAC1.

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1965: P. Grady, Accounting Research Study No. 7, *Inventory of Generally Accepted Accounting Principles for Business Enterprises*, AICPA.
1966: A *Statement of Basic Accounting Theory*, AAA.
1970: Statement of Accounting Principles Board No. 4, *Basic Concepts and Accounting Principles Underlying Financial Statements of Business Enterprises*, AICPA.
1972: W. J. Kenley and G. J. Staubus, Accounting Research Study No. 3, *Objectives and Concepts of Financial Statements*, ARF.
1973: Report of the Study Group on the Objectives of Financial Statements, *Objectives of Financial Statements*, AICPA.
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The CF and Accounting Standards: The Persistence of Discrepancies

The conceptual framework (CF) has introduced a set of ideals and broad criteria for financial reporting focusing on servicing users' information needs. In this article, each concepts statement is considered, in turn, and its consistency with selected accounting standards examined. Particular attention is paid to accounting standards issued for the first time, or in a revised form, subsequent to the release of the concepts statements. It is found that many standards have provisions that are at odds with the CF. These inconsistencies come as no surprise. The CF is incomplete; the issue of measurement remains unresolved, leaving ambiguity in the definitions of concepts such as revenue. The CF project has remained unfinished while standard setters have given priority to other tasks, such as international harmonization, in resolving contemporary financial reporting issues.

Key words: Accounting; Concepts; Standards.

The conceptual framework (CF) provides a deductive basis for the setting of accounting standards in accordance with a predetermined objective for financial reporting. The framework itself adopts a deductive process in which the identification of the qualitative characteristics of financial information supposedly stems from the stated objective of general purpose financial reports andthe scope of the reporting entity. The definitions and recognition criteria of elements of financial statements should then be consistent with the qualitative characteristics and, therefore, the objective of general purpose financial reports applied to reporting entities. If, then, the prescriptions and proscriptions embodied in accounting standards reflect choices made on the basis of the CF, accounting standards should be both internally and collectively consistent and reflect the information needs of users, subject to the constraints identified within the CF. Consistency of accounting standards with the CF was intended by its authors,[1]

[1] See Staunton (2002).

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and indeed legislators at the time,[2] and remains the intention of the standard setters.[3]

In Australia, four Statements of Accounting Concepts (SACs) have been issued. Collectively they provide a set of ideals and broad criteria that focus on servicing users' information needs.[4] The ideals involve several trade-offs, including the unspecified trade-off between relevance and reliability, and the explicit trade-off between costs and benefits. But how the costs and benefits should be determined remains unspecified. This requires political resolutions rather than economic solutions to find an appropriate balance between the different costs borne and benefits received by interested parties, such as preparers and the various categories of users. In making these trade-offs, standard setters have been guided by other ideals, such as harmonization with international accounting standards. Despite the ideals, discrepancies between the CF and accounting standards have left users of financial reports to struggle through a maze of mixed measurement methods, inconsistent accounting practices and muddled concepts of reporting on performance.[5]

This article evaluates accounting standards with reference to the CF.[6] The emphasis will be on standards issued or revised in the last decade since the release of the CF documents.[7] Many accounting standards have been issued or revised during this period as part of the Australian Accounting Standards Board's (AASB's) harmonization program. This analysis finds numerous inconsistencies between accounting standards and the CF. The next section examines the application of, and departure from, SAC 1, *Definition of the Reporting Entity* (AASB and PSASB, 1990a), in accounting standards. This is followed by a discussion of how specific accounting standards fail to pursue the aims formulated in SAC 2, *Objective of General Purpose Financial Reporting* (AASB and PSASB, 1990b). Then, inconsistencies between accounting standards and SAC 3, *Qualitative Characteristics of Financial Information* (AASB and PSASB, 1990c) are identified and discussed. This is followed by an analysis of incongruities between accounting standards and

[2] The Australian Securities Commission Act 1989, s. 226, stated that one of the functions of the AASB was to develop a CF for the purpose of evaluating proposed standards.

[3] 'The primary purpose of the CF is to guide the AASB and the UIG when developing and reviewing Accounting Standards ... For the AASB, this is consistent with its statutory obligation to develop a CF ... for the purpose of evaluating proposed Accounting Standards and international standards' (AASB, 2001b, para. 5).

[4] The Australian CF is similar to the IASB's CF; see Jones and Wolnizer (2003).

[5] For a discussion of the robustness of the (IASB and FASB) CF to alternative concepts of performance measurement refer to Newberry (2003). Dean and Clarke (2003) also note the maze of mixed measurements allowed by the CF.

[6] The implications of applying the CF for AAS 25, *Financial Reporting by Superannuation Plans*, are analysed by Gallery and Gallery (2002) and are not addressed in this article.

[7] However, whether an accounting standard precedes or follows the issue of the concepts statements has no apparent bearing on its consistency with the CF. Howieson (1993) identifies inconsistencies between accounting standards and SAC 4, *Definition and Recognition of the Elements of Financial Statements*, at the time of its issue.

SAC 4, *Definition and Recognition of the Elements of Financial Statements* (AASB and PSASB, 1995). Concluding remarks are made in the final section.

SAC 1 REPORTING ENTITIES

SAC 1 establishes criteria for setting the boundaries of the reporting entity based on users whose information needs have common elements. Reporting entities are defined as those for which it is reasonable to expect the existence of users dependent upon general purpose financial reports for information for making and evaluating decisions about the allocation of scarce resources (SAC 1, para. 40). The reporting entity concept includes the economic entity, defined as a group of entities comprising a controlling entity and one or more controlled entities (para. 6).

The definition of *reporting entity* used throughout the standards is substantially the same as the definition in SAC 1. The accounting standards push the definition beyond the abstract level by applying the concepts to identify specific categories of entities that are reporting entities. These include: listed corporations; borrowing corporations; and companies that are not subsidiaries of a holding company incorporated in Australia, but are subsidiaries of a foreign company that is listed on a stock market (see AASB 1001, *Accounting Policies*: AASB, 1999a, para. 9.1).[8] The identification of specific categories of entities may be interpreted as an application of the definition.

In addition to providing guidance on whether entities are reporting entities, SAC 1 has implications for the scope of what should, and what should not, be reported on as a component of the economic entity. For example, entities that are significantly influenced but not controlled are outside the boundaries of the economic entity (SAC 1, para. 31). Thus an entity that is significantly influenced, but not controlled, would not be reported on because, according to the definition, it does not form part of the economic entity.

Whether AASB 1016, *Accounting for Investments in Associates* (AASB, 1998c), is consistent with SAC 1 depends on the view of equity accounting adopted. Miller and Leo (1997, pp. 3–7) outline alternative views of equity accounting: an accrual, a method of measuring the investment in the associate, and a one-line form of consolidation. They collapse the accrual and measurement views into one because they have common implications for the application of equity accounting. Although the adoption of the combined accrual and asset measurement view of equity accounting is explicitly stated in the Standard (AASB 1016, para. 4.1.1), the consolidation view is reflected in many of its detailed provisions. Miller and Leo (1997, pp. 7–13) identify several features of AASB 1016 that are consistent with

[8] The presumption of users dependent upon general purpose financial reports prepared by a company that is a subsidiary of a foreign company listed on a stock exchange creates an intriguing anomaly: the reporting of separate financial statements of a subsidiary of a foreign listed company may be required while the reporting of separate financial statements of a subsidiary of an Australian listed corporation is not. It remains unclear why for a subsidiary, the existence of users, such as the company's creditors and the shareholders of its parent company, should vary with the place of incorporation of the parent company.

the consolidation view, including the placement of equity accounting in the consolidated financial statements but not in the investor's single entity financial statements and the requirement to eliminate unrealized profit resulting from 'intra-entity' transactions. The application of equity accounting in consolidated financial statements expands the boundaries of general purpose financial reports to reporting on an extended economic entity that includes investments in which the investor has significant influence.

The boundaries of general purpose financial reports are further expanded by AASB 1006, *Interests in Joint Ventures* (AASB, 1998a), which requires joint venture entities to be accounted for using the equity method (paras 6.1, 6.2). Joint venture entities include jointly controlled partnerships,[9] companies and trusts.

In summary, while accounting standards are generally consistent with SAC 1, some inconsistencies are observed, particularly in relation to the scope of what should be reported on as forming part of an economic entity.

SAC 2 OBJECTIVE

Consistent with the definition of a reporting entity based on users' information needs, SAC 2 establishes the functions[10] of general purpose financial reports as: (a) to present information useful to users for making and evaluating decisions about the allocation of scarce resources (para. 43), and (b) to provide a mechanism to enable managers and governing bodies to discharge their accountability (paras 14, 44). Decision usefulness requires information to be relevant to the assessment of performance, financial position and financing and investing (para. 45).

Inconsistencies between the accounting standards and SAC 2 imply that general purpose financial reports may be failing to serve their planned functions. In comparing the functions formulated in SAC 2 with the prescriptions, proscriptions and omissions of accounting standards, two questions arise:

1. Is useful information not required by the standards? and
2. Is the information required by the standards useful?

Both of these questions will be addressed in the context of specific accounting issues and standards, including reporting on financial position, risk and related parties.

Financial position is defined in SAC 2 (para. 5) as the economic condition of a reporting entity, having regard to its control over resources, financial structure, capacity for adaptation and solvency. Published financial statements have been criticized for their failure to provide information about solvency (Sykes, 1996; Loftus and Miller, 2000; Clarke and Dean, 2001, pp. 147–83; Dean and Clarke,

[9] The application of equity accounting to jointly controlled partnerships differs from that of other joint venture entities in that it is implemented in both the investor's single entity statements and the consolidated statements, if applicable.

[10] While SAC 2 refers to the objective of general purpose financial reporting, the term 'functions' is more appropriate, as argued by Walker (2003). Accordingly, the term 'functions' is used henceforth.

2001, pp. 71–98; Lawson, 2002, p. 4). A common thread to these criticisms is the level of aggregation of financial statement information.

While consolidated financial statements may provide useful information about the performance of an economic entity for investors, in particular, the shareholders of the chief entity, they can mask weaknesses in its financial position. The financial strength of one subsidiary may offset the financial weakness of another. Information provided in aggregate may be misleading unless it is supported by disaggregated information about the financial position and liquidity of individual entities.

A related concern is that consolidated financial statements fail to provide users with information relevant to the evaluation of the solvency of an individual company within an economic entity. The collapse of Ansett, a subsidiary of Air New Zealand, is a recent reminder of users' needs for information to evaluate solvency at the level of an individual company and not allow it to be masked by the consolidation process. A survey of users' needs undertaken by the AICPA Special Committee found that creditors need financial information disaggregated on a legal basis (AICPA Special Committee, 1994, p. 50). Clarke *et al.* (2002, pp. 58–72) recommend the disclosure of statistical information about subsidiaries. This is a case where accounting standards fail to address users' needs and ignore calls for information relevant to the evaluation of solvency from the perspective of creditors and in relation to individual companies within an economic entity.

Another example of useful information not being provided by accounting standards is the lack of required disclosure of information about risk. The decisions of investors, creditors and other resource providers relate to the amounts, timing and uncertainty of future cash flows. Recipients of goods and services may want to assess the ability of the entity to continue to provide goods and services in the future (SAC 2, para. 22). Risk is affected by many aspects of an entity's operations, including the nature of operations, concentrations of customers, risk management policies such as insurance, and the use of derivative and other financial instruments (Carlton *et al.*, forthcoming). Information risk, including the sensitivity of estimates used in financial statements, is also relevant to users of financial statements. Australian requirements fall short of disclosures required in other jurisdictions, as discussed by Carlton *et al.*

The collapse of Enron drew global attention to the need for information about non-arm's-length dealings. The prescriptions of AASB 1017, *Related Party Disclosures* (AASB, 1997), potentially omit useful information because they do not apply to transactions with managers (and other employees) who are not directors. By comparison, IAS 24, *Related Party Disclosures* (IASC, 1984), includes key management personnel as related parties. Even this is not viewed to be sufficient by the Big 5 accounting firms in the U.S. In an effort to target transactions that have been structured in a manner that circumvents disclosure requirements, they petitioned the SEC in December 2001 to expand the scope of 'related party' disclosures to include all parties with whom the entity does not transact on an arm's-length basis.

Another shortcoming of AASB 1017 is the limited level of detail required to be disclosed. AASB 1017 (paras 4.17, 5.1, 6.2) requires disclosure of the nature of the terms and conditions of each different type of related party transaction, but not

the actual terms and conditions.[11] Enron's related party disclosures in its 2000 Annual Report included statements that the dealings were on terms that could be negotiated with unrelated parties. However, it was subsequently revealed that these included transfers of Enron's treasury stock at a discount. Without disclosure of key terms of the transactions, such as price, users are unable to evaluate their relevance to assessing performance and financial position and the discharging of accountability.

Many of the disclosures required by AASB 1017 are in aggregate, such as the aggregate amounts of loans made, guaranteed or secured to directors and director-related entities outstanding at the end of the year (paras 4.10, 4.12); aggregate amounts of provisions for doubtful debts for loans to directors and director-related entities (para. 4.18 (d)); aggregate interest revenue resulting from transactions with related parties in the wholly owned group (para. 5.2 (a) (i)); and aggregate interest revenue resulting from transactions with other related parties (para. 6.4 (a) (i)). It is, therefore, impossible to determine if one individual or one related entity has substantial loans outstanding, or whether the loans are spread over many entities. Obviously, disclosure of details of particular transactions with individual related parties would frequently be too voluminous to be easily understood (para. 6.6.7). But in reaching a compromise the resulting standard sacrifices usefulness by moving to the other end of the spectrum, requiring disclosure of total transactions aggregated for each category of related parties, rather than requiring disclosure of material contracts and concentrations of contracts.

In summary, accounting standards fall short of requiring the provision of information useful for decisions about the allocation of scarce resources and discharging accountability. The solvency perspective is ignored in highly aggregated and summarized information reported in consolidated financial statements in accordance with accounting standards, reflecting, in part, a trade-off between the interests of creditors and investors. More information is needed for the assessment of risk. The scope of related party disclosure requirements is too narrow. Useful information is omitted and the prescribed disclosures are in a form so highly aggregated that their usefulness in discharging management's accountability is not achieved.

SAC 3 QUALITATIVE CHARACTERISTICS

SAC 3 identifies the qualitative characteristics that financial information should possess in order to serve the functions of general purpose financial reports. All financial information that satisfies the concepts of relevance and reliability should be included in general purpose financial reports, subject to materiality (para. 48). In applying these concepts standard setters may need to balance relevance and reliability on certain issues. In some instances a choice may provide both relevant and reliable information, such as the fair value of investments in listed securities.

[11] In contrast, the New Zealand Financial Reporting Standard FRS-9, *Information to be Disclosed in Financial Statements* (FRSB, 1996), requires disclosure of interest rates and the terms of repayment for loans made to directors.

However, with respect to other accounting issues, choices made in the interests of relevance may reduce reliability; and highly reliable information may have little relevance to users, such as unamortized acquisition, exploration and development costs, which have no bearing on the value of mineral reserves but are reported in accordance with AASB 1022, *Accounting for the Extractive Industries* (AASB, 1989). SAC 3 provides no guidance on how standard setters and preparers should try to achieve a balance. It is little surprise, then, that as new issues are addressed, or longstanding issues are revisited, by standard setters inconsistencies arise from the emphasis on one characteristic over the other, such as the move toward fair value measurement for financial instruments, while primarily maintaining historical cost for the measurement of intangible assets.

Consider SAC 3, which states that for information to be both relevant and reliable it is necessary to adopt the principle of substance over form (SAC 3, para. 24). Yet, according to AASB 1006 the method of accounting for a jointly controlled investment depends upon the form of the investment. The equity accounting method must be applied by the investor when accounting for investments in joint venture entities, such as companies, partnerships and trusts, while the line-by-line method is required when investments are in the form of a joint venture operation (AASB 1006, paras 5.1, 6.1, 6.2, 6.3).

Joint venture (jv) partnerships and jv operations are very similar in effect, the difference being that the partnership attempts to make and distribute profits, while the jv operation distributes output. In substance, both the jv partnership and the jv operation may give rise to liabilities. The difference in legal form imposes additional liability on the jv partner—each jv partner is jointly and severally liable for the liabilities of the partnership. Despite this being the case, the liabilities of the jv partnership remain off balance sheet while the venturer's share of the liabilities of the jv operation is recognized using the line-by-line method.

Other qualitative characteristics of financial information identified by SAC 3 are comparability and understandability. The flexibility in balancing relevance and reliability can lead to significant variation in accounting for transactions and events not subject to accounting standards, as preparers choose different trade-offs. For example, Chalmers and Godfrey (2000) find considerable variation in accounting for derivative financial instruments by Australian companies. While the disclosure of accounting policies can provide a warning to users that the financial statements of different entities are not comparable it does not substitute for comparability.

Chalmers and Godfrey (2000, p. 46) report a high incidence of indeterminate accounting policies with respect to derivative financial instruments, such as interest rate swaps, and specific aspects of accounting policies, such as the treatment of option premiums. They interpret their results as suggesting that (p. 46), 'the AASB 1033 disclosure requirements are too general to convey useful and comparable information about the financial effects of firms' derivatives'.

Gallery (2003) identifies weaknesses in the requirements in AASB 1028, *Employee Benefits* (AASB, 2001a), for disclosures about obligations of entities sponsoring superannuation funds. The Standard requires the information to be drawn from the financial reports of the sponsored superannuation funds. The triennial

actuarial valuations common to the financial statements of superannuation funds result in outdated disclosures in the financial statements of the sponsoring companies. According to Gallery, 'An absence of common measurement dates impacts on both the comparability of the data and the reliability of aggregate data'.

Similarly, accounting standards that permit choice by preparers impede comparability of financial statements. For example, the requirement to recognize inventory at the lower of cost and net realizable value leaves a lot of scope for alternative measures of cost.[12] In addition to the variations in cost assignment methods and differences in the usage of actual and standard costs, reporting entities differ in the treatment of certain items, such as distribution costs, as either inventory or period expenses. The long-awaited disclosure of cost of sales, as required by the revision of AASB 1018, *Statement of Financial Performance* (AASB, 1999c), has failed to provide useful information for comparing performance of the major retailers because of the variety of methods used to calculate reported cost of sales (Ravlic, 2002, p. 11).

Whether costs are accounted for as inventory or period expenses can have a material impact on measures of performance. For example, Coles Myer changed its accounting policy for inventory costing with effect from 31 July 2000. The company started including settlement discounts and certain direct costs of operating distribution centres as components of inventories instead of its previous policy of accounting for the discounts as revenue and the distribution centre costs as expenses as incurred. The effect of these changes was to increase profit before tax by $25.4 million (Coles Myer Annual Report, 2001). This represents 11.6 per cent of reported profit before tax. In this instance comparability of performance of the entity over time and between entities is impaired by the flexibility of measurement of inventory and cost of goods sold permitted by accounting standards. Again, users are warned about the lack of comparability but are unable to properly evaluate its effect on measures of performance because, as noted in Coles Myer's report, disclosure of comparative data 'is impracticable'.

Disclosure of accounting policies is an essential but insufficient condition for understandability of financial information. To be understandable, information must be meaningful. This condition is not met in some reported numbers that result from prescribed accounting practices. For example, the translation of assets measured at cost in a foreign currency at current exchange rates, as required by AASB 1012, *Foreign Currency Translation* (AASB, 2000), yields a measure that is neither historical cost nor current value. The resulting number is, in fact, meaningless. Disclosures of outside equity interests in profit and components of equity in accordance with AASB 1024, *Consolidated Accounts* (AASB, 1992), provide another example. The outside equity figures result from the application of percentage claims, some of which reflect direct legal ownership and some of which represent indirect claims, to amounts of profit and reserves that do not reflect legal claims because

[12] AASB 1019 (1998d, para. 13.1) defines purchase cost as the aggregate of the purchase price, import duties and other taxes (excluding taxes that are recoverable from the taxing authorities), inward transport and handling costs and any other *directly attributable* costs of acquisition.

intra-entity profit has been eliminated. The amount reported as an outside equity interest is not a legal interest, nor is it a financial interest because it does not relate to any claim or potential claim to dividends.

Accounting standards tolerate different accounting methods at the expense of comparability. The required disclosures of accounting policies may caution users that financial statements are not comparable, but those disclosures do not achieve or enable comparability.

SAC 4 THE ELEMENTS

Measurement is fundamental to accounting. The interpretation of the definitions and recognition criteria is dependent upon a measurement concept which is, as yet, unspecified. For instance, revenues are defined as 'inflows or other enhancements, or savings in outflows, of future economic benefits in the form of increases in assets or reductions of liabilities of the entity' (SAC 4, para. 111). But whether there has been an increase in the stated amount or value of assets or a reduction of liabilities depends on how assets and liabilities are measured (Miller and Loftus, 1993, pp. 5–7). The mixed measurement model reflected in the approved set of accounting standards is the inevitable outcome of standard setters' attempts to grapple with the ambiguity arising from a CF that continues to avoid the fundamental question of measurement.[13] Thus we observe anomalies in the recognition of revenue: an increase in the value of livestock is revenue, but an increase in the value of land is not; and an increase in the excess of the market value of a subsidiary over its net assets is revenue for a life insurer but not for other entities.

The choice of a measurement model has implications for the interpretation of the recognition criteria. In relation to the recognition of revenue, the evidence needed to ascertain that an increase in assets has occurred is dependent upon how the increase is measured. In a transaction-based model, a transaction with a third party is evidence of an increase in assets. However, in a market-based model, care must be taken to ensure that the evidence of a change in market value is sufficient. Accordingly, we observe more willingness to accept changes in market value as revenue in industries where market prices are more readily observed, such as investments of a superannuation fund, and in relation to assets and liabilities that are traded in active and liquid markets.

Similarly, the interaction of measurement and the recognition criteria can be observed in the prescriptions of AASB 1011, *Accounting for Research and Development Costs* (AASB, 1987), which requires research and development costs to be capitalized to the extent that they are recoverable beyond all reasonable doubt. Different recognition criteria may be acceptable if the future economic benefits associated with the research and development were measured at market value because, if ascertainable, it reflects the level of uncertainty associated with the economic benefits.

[13] See also Bradbury (2003), Walker (2003) and Walker and Jones (2003).

The recognition criteria for assets and liabilities adopted by SAC 4 are that the future economic benefits or sacrifices are probable and able to be measured reliably. In contrast, AASB 1022, allows a lower threshold than 'probable' for the recognition of deferred exploration and evaluation costs. Costs may be carried forward if 'exploration and evaluation activities in the area of interest have not at balance date reached a stage which permits a reasonable assessment of the existence or otherwise of economically recoverable reserves, and active and significant operations . . . are continuing' (para. 11(b)).

Another type of inconsistency between accounting standards and SAC 4 occurs when the recognition of liabilities is not required, although those liabilities satisfy the recognition criteria. For example, AASB 1008, *Leases* (AASB, 1998b), does not require the recognition of a liability for leases that are classified as operating leases, notwithstanding the existence of an obligation, even if it is non-cancellable.[14] Some categories of users, in particular analysts, have criticized the dichotomous classification of leases as finance leases or operating leases, and the resulting tolerance of off-balance-sheet, non-cancellable lease obligations.

Inconsistencies between accounting standards and SAC 4 are not confined to the recognition criteria. Assets are defined as 'future economic benefits controlled by the entity as a result of past transactions or other past events' (para. 14). Liabilities are defined as 'future sacrifices of economic benefits that the entity is presently obliged to make to other entities as a result of past transactions or other past events' (para. 48). Yet accounting standards permit the recognition of deferred debits and credits that are neither assets nor liabilities. For example, AASB 1006 prescribes the recognition of the venturer's share of assets of a joint venture operation, notwithstanding that the economic benefits are not unilaterally controlled. Deferred tax liabilities recognized in accordance with AASB 1020, *Income Taxes* (AASB, 1999b), do not satisfy the definition of liabilities because there is no present obligation to taxation authorities.

In summary, inconsistencies between accounting standards and SAC 4 are numerous and unsystematic. Some standards prescribe the recognition of deferred debits and credits that are neither assets nor liabilities, while other standards prescribe non-recognition of assets and liabilities that satisfy the recognition criteria. Some standards require more restrictive tests than SAC 4 for the recognition of assets while a less restrictive test is applied to the deferral of exploration and evaluation costs.

CONCLUDING COMMENTS

The preceding analysis demonstrates the pervasiveness of discrepancies between accounting standards and the CF. Many of the inconsistencies between accounting standards and SAC 4 identified by Howieson (1993) have withstood the test of time for a decade. This is not to suggest that standard setters have ignored the

[14] For a more comprehensive discussion of the implications of the CF for accounting for leases, see Hart (2002).

CF. Standard setters use the CF to guide debate of accounting issues but must do so in a maze of incompleteness, specified and unspecified trade-offs, and pressures to harmonize to international accounting standards.

The CF should be progressed so that it can be more useful to standard setters and practitioners seeking sound and consistent solutions to financial reporting problems. Too much of the foundation has been left in limbo. In particular, the fundamental question of measurement needs to be addressed. The need for agreed measurement concepts is most evident in the prolonged debate on accounting for financial instruments.[15] International convergence does not eliminate the need for a CF. Standard setters, whether domestic or global, need a CF to underpin the debate on new and recurring financial reporting issues.

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The Conceptual Framework as a Coherent System for the Development of Accounting Standards

The Financial Accounting Standards Board (FASB) visualized a conceptual accounting framework as a 'coherent system of interrelated objectives and fundamentals that can lead to consistent standards that prescribes the nature, function, and limits of financial accounting and financial statements' (FASB, 1976). To Australian standard setters, the primary purpose of the conceptual framework (CF) was only to be used as a 'guide' in developing and reviewing accounting standards (AASB, 1995, para. 5). The International Accounting Standards Committee (IASC) diminished the role of a conceptual framework even further by openly acknowledging that some standards are inconsistent with the guidelines offered by the framework (IASC, 1989 para. 12). Even though the Australian Accounting Standards Board (AASB) supposedly pursues a policy of harmonization of conceptual frameworks and accounting standards, there are also acknowledged inconsistencies in the conceptual frameworks of the IASC.

The aim of this article is to assess the coherence of the Australian (and IASC) conceptual framework. This analysis identifies confusion in drafting or construction of the conceptual framework, internal inconsistencies, and inconsistency with the legal framework within which business entities operate. Accordingly it is suggested that the adoption of a conceptual framework will not lead to consistent accounting standards, and inevitably the conceptual framework will lack credibility so long as it is inconsistent with legislation.

Key words: Accounting; Concepts; Standards.

ESSENTIAL CHARACTERISTICS

Assets

From SAC 4 (AASB, 1992) in terms of *essential characteristics*, assets are defined as (para. 14): (a) future economic benefits, and (b) controlled by the entity as a result of past transactions or other past events. Future economic benefits can be described as the capacity to provide benefits (future economic benefits) to the entities which control them (para. 18). An asset should be *recognized* in a statement of financial position when and only when (para. 38):

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(a) it is probable that the future economic benefits embodied in the asset will eventuate; and
(b) the asset possesses a cost or other value that can be measured reliably.

In contrast, the IASC framework defines assets as (para. 49): (a) resources; (b) controlled by an entity as a result of past events; from which (c) future economic benefits are expected to flow to the entity.

Assets as 'Rights' or Future Economic Benefits Are assets 'rights', from which an entity can expect to derive future economic benefits, or are assets the future economic benefits per se? Returning to SAC 4, if assets are defined as future economic benefits, the first criterion for the recognition of future economic benefits in a statement of financial position may be re-expressed as follows: 'Future economic benefits should be recognized in a statement of financial position if it is probable that the future economic benefits embodied in the future economic benefits will eventuate.'

Since future economic benefits are also described as the scarce capacity to provide benefits (SAC 4, para. 18), an alternative expression of the criterion may be: 'A scarce capacity to provide economic benefits should be recognized in a statement of financial position if it is probable that the scarce capacity to provide economic benefits embodied in the scarce capacity to provide economic benefits will eventuate.'

The circularity is obvious. It is not surprising, therefore, that such poor drafting in the conceptual framework (CF) is associated with internal inconsistencies in subsequently issued accounting standards and in practice.

A right is recognized as an asset if it is reported on, or incorporated in amounts reported on, the face of the financial statements of an entity (whether or not further disclosure of the item is made in notes thereto) (SAC 4, para. 10). Not all rights are recognized as assets.

Some rights, which are recognized as assets in a statement of financial position, are not controlled by an entity. Even though goodwill is defined as comprising the future benefits from unidentifiable intangibles, these unidentifiables are identified in Australian accounting standards as including market penetration, effective advertising, good labour relations and a superior operating team (AASB 1013, para. 5.1.1). Market penetration and a superior operating team are not rights, which could be described as being controlled by an entity. The 'possession' of these unidentifiable attributes by an entity or by an operating segment of an entity causes the value of the entity or its operating segment to be greater than the fair value of identifiable net attributes. An entity, however, cannot have the unidentifiable attributes of ineffective market penetration, ineffective advertising, poor labour relations or an inferior operating team. If the value of an entity or an operating segment is less than the fair value of identifiable net attributes, the cause is overvalued specific types of identifiable attributes (AASB 1013, para. 8.1).

It seems likely that the concept of an asset as future economic benefits has not led to the goodwill accounting standard. Rather, the preconception of the goodwill accounting standard has led to the concept of an asset as future economic benefits in the CF. The identified unidentifiables do not qualify either as a 'right' or as future

economic benefits, which can be controlled by an entity. It is thus perhaps preferable that accounting for goodwill should be accepted as one of accounting's many anomalies, rather than attempting to mould the framework to accommodate it.

If goodwill is eliminated from any consideration, at any reporting date, the only benefits controlled by an entity are the current economic benefits at that date. The equivalent economic benefits of a right at the reporting date, plus the potential incremental economic benefits to be derived from the use or exploitation of the right, are the future economic benefits to be derived from the control of that right. The incremental economic benefits, which may be derived from the future exploitation of a right, are not derived through control of the right at the reporting date. The incremental benefits are derived through the future economic benefits sacrificed in any production, marketing and administration activities subsequent to the reporting date. At a reporting date, it is difficult to understand how an entity can control the potential incremental benefits at that date. It would seem rather that, at a reporting date, an entity is unable to control probable future economic benefits, but is able to control only the 'rights' to current economic benefits at that date.

Past Transactions or Events In terms of SAC 4, the future economic benefits controlled by an entity at a reporting date must have arisen 'as a result of past transactions or other past events'—a similar definition to that contained in the FASB CON6 (1985). Since the reference is to 'other past events', a transaction must be another type of past event. Thus the future economic benefits must have arisen 'as a result of past events or other past events'. The international framework adopts a 'belt and braces' approach in defining the control of assets arising 'as a result of past events' (para. 49) and as a result of 'past transactions and other events' (para. 58).

Transactions are often distinguished from events on the basis of their effect on financial statements. The effects of an event, which enables an entity to control a right, may or may not be recognized. If the effects are recognized, the event is called a transaction. Effects are recognized if those effects are 'reported on, or incorporated in amounts reported on, the face of the financial statements of the entity (whether or not further disclosure of the item is made in the notes thereto)' (SAC 4, para. 10). Thus transactions are only special classes of events.

If, at a reporting date, an entity has been affected by a past event, regardless of whether that event is a special event or some other event, control over any economic benefits, present or future, must exist in the conditions at the reporting date. Thus it would seem much simpler to accept as a characteristic that a right must be controlled by an entity *in the conditions existing at the reporting date.*

The Capacity to Control In relation to an *individual right,* an entity has the capacity to control that right if it has the capacity 'to benefit from the right in the pursuit of the entity's objectives and to deny or regulate the access of others to that benefit' (SAC 4, para. 14). Although the concept of the capacity to control is adopted as an essential characteristic in the identification and recognition of most rights, it is not the essential characteristic determining the accounting for leases.

There is no fundamental difference between the different types of leases. In every lease, the lessee acquires the capacity to control leased asset services over the lease term, even though the lessor retains ownership of the asset over this period. If financial information is to be both relevant and reliable, reporting must be based on the substance of transactions rather than their legal form (SAC 4, para. 24). The lease agreement may or may not be structured in such a way that the lessee also bears the risks and rewards of ownership of the leased asset subsequent to the lease term.

Ownership, however, is not an essential characteristic of an asset, since an entity does not have to own an asset in order to control its benefits (SAC 4, para. 26). Accounting standards, however, distinguish between various types of leases on the basis of characteristics incident to ownership of the leased property (AASB 1008, para. 20). Since ownership is not an essential characteristic of an asset, the distinction between various types of leases based on an ownership would seem to be more in the nature of a 'political patch' than any fundamental concept. The aim of the distinction may be to reduce the complexity of reporting, in the statements of financial position and performance, through the elimination of the asset/liability effects of a comparatively large number of immaterial lease transactions. The aim may also be to introduce a specific set of rules to circumvent the necessity to apply judgment in determining the substance of a lease transaction or to allow accountants to develop innovative accounting practices.

In the case of *investment rights*, the concept of capacity to control as a guide in determining accounting standards is extended from the asset of the investor (the investment) to the investee. In terms of AASB 1024, an investor with the rights flowing from an equity investment in an entity has the capacity to control that investee, its controlled entity or subsidiary, if it has the capacity to: (a) dominate decision making, directly or indirectly, in relation to the financial and operating policies of the investee; so as to (b) enable that investee to operate with it in pursuing the objectives of the controlling investor (AASB 1024, para. 9). Under the corresponding International standard, the phrase 'to enable that other entity (the investee) to operate with it in pursuing the objectives of the controlling entity' is replaced by the simpler 'to obtain benefits from its [the investee] activities' (IAS 27, para. 6).

The problem with AASB 1024 arises from the attempt to extend the concept of control to make it the criterion for determining whether a set of consolidated accounts should be prepared. The concept of control is dispensed with in the case of stapled securities, where another 'political patch' is applied to solve the problem. Where the securities of two separate legal entities are stapled, a 'reporting entity' is 'deemed' to exist, comprising the entities with the stapled securities, thus requiring a set of consolidated accounts to be prepared (Urgent Issues Group, 2000). Rather than apply 'patches' to solve specific issues, it would seem preferable to formulate an accounting standard for stapled securities based on the conceptual objectives set out in SAC 2. Under SAC 2, general purpose financial reports shall disclose information 'relevant to the assessment of performance, financial position, and financing and investing, including information about compliance' (para. 45). In the case of stapled securities used as a vehicle in development activities,

consolidation would appear to be essential for the production of 'information relevant to performance'.

In terms of AASB 1016, an investor with rights flowing from an equity investment in an entity has the capacity to exert significant influence if it has the power 'to affect substantially (but not control) the financial and operating policies of the investee, termed its associate' (AASB 1016, para. 9).

As in the case of any shareholder, an investor only has the capacity to control or exert significant influence through the exercise of votes in general meetings of a company. If an investor has the capacity to dominate or substantially influence the financial and operating policies of an investee, it can only have that capacity through having the board of the investee, or members of that board, act in accordance with its instructions. Corporations law defines a director as, inter alia, a 'person in accordance with whose directions or instructions the members of the body's Board are instructed to act' (s. 60(c)(iii)). Where, as is likely, the nominee directors appointed by the investor or other investee board directors are accustomed to act on directions or instructions of the investor, or the investor imposes his own financial reporting system, the investor is a shadow director of the investee. An investor that consolidates a controlled entity or equity accounts an associate, in accordance with the conditions of AASB 1024 and AASB 1016, therefore, must be a shadow director of those entities.

In AASB 1024, the stated aim of the capacity to control or significantly influence is to enable the controlled entity 'to operate with it [the controlling entity] in pursuing the objectives of the controlling entity' (para. 9). Once appointed to a board, however, a director's fiduciary duties of good faith and loyalty, and duties of skill and care, are owed to the company, rather than to the individual shareholders of that company (see, e.g., *Walker v Wimborne* (1976) 137 CLR 1). Even if the investor acts as a shadow director in dominating the operating and financial policies of the controlled entity, as a director of the company, it cannot act in pursuit of the objectives of one of the shareholders of the company. Situations may arise where the capacity to control is acquired with only 20 per cent of the voting power. The investee could only 'pursue the objectives of the controlling entity' if that entity's objectives were those of the other 80 per cent shareholding. In a limited partnership, the general partner may be a corporate controlled entity with minimal or no equity interest in the partnership. It would be in breach of Corporations Law to pursue the objectives of a minimal equity interest unless that interest coincided with the interests of the limited partners.

Asset Recognition Criteria In terms of SAC 4, an asset should be *recognized* in a statement of financial position when and only when: (a) it is probable that the future economic benefits embodied in the asset will eventuate; and (b) the asset possesses a cost or other value that can be measured reliably. Similar criteria for recognition are set out in the International framework.

Probability of Future Economic Benefits For most rights, the chance of deriving future economic benefits must be 'more likely rather than less likely' with the likelihood 'that which can be expected on the basis of available evidence or logic'

(SAC 4, para. 40). Based on the events, which have unfolded in the recent corporate collapses, directors' and auditors' interpretation of 'available evidence and logic' is not always going to result in reliable measures of probability. In accounting standards, however, this basic test of more likely than less likely is not always used for the recognition of assets.

Research and development expenditure may be recognized as an asset only if, *beyond any reasonable doubt*, an entity may expect to derive future economic benefits (AASB 1011, para. 31). A deferred tax asset may be recognized in respect of a loss carried forward, where there is '*convincing or other evidence*' that the future economic benefits will be derived (AASB 1020, para. 7.3.9). Prior to the issue of the amended AASB 1020 in 1999, 'convincing or other evidence' was defined as '*virtual certainty*'. If >50% probability is a measure of more likely than less likely, what are the measures of 'beyond reasonable doubt' and 'convincing or other evidence'? As mathematical measures, could beyond reasonable doubt be >90% with convincing or other evidence >99%? In the case of exploration and evaluation costs, the test is 'expected to be recouped' (AASB 1022, para. 11(a))—perhaps a weak probability test of >40%? No guidelines are provided in SAC 4 and even if there were guidelines, the measures adopted by directors would be subjective.

Where rights are acquired, the test for the probability of deriving future economic benefits may be an *ex ante* or an *ex post* test. In the case of most rights, the test is an *ex ante* one—made at the time economic benefits are sacrificed to acquire rights. In respect of exploration and pre-production development sacrifices of economic benefits, the tests may be *ex ante* or *ex post*. The cost of acquiring the rights from exploration and pre-production may be recognized as an expense at the date of sacrifice of benefits if directors are of the opinion that, at that date, it is not possible to determine whether the expected benefits are probable and reliably measurable. Alternatively, the asset/expense decision may be deferred until the exploration and evaluation activities have reached the stage where a reasonable assessment of recoverability can be made (AASB 1022, para. 11(b)).

Revision of Probabilities A right may fail the relevant probability test in one period but meet the test in a subsequent period (SAC 4, para. 43). Thus an entity may write off exploration and pre-production costs as an expense at the time the benefits are sacrificed if the deemed probability of recovery is <50%, resurrect those expensed costs as an asset (and a profit) in the following period if deemed probability of recovery is ≥50%, and expense them again in the next period if the deemed probability is again <50%. In the case of research and development costs, however, benefits sacrificed in one period cannot be resurrected in a later period (AASB 1011, para. 50). Of all rights acquired or in the process of acquisition, the rights from a research and development program would appear to be the most likely to fail the probability test during the research and development period. Why single out the rights arising from a research and development program for a divergent treatment?

The ability to write off costs in one period on the basis of a subjective weak probability test and subsequently resurrect those costs as an asset on an equally

weak subjective probability test would seem an open invitation to directors and auditors to manipulate ('manage') accounting data.

The Possession of a Cost or Value That Can be Measured Reliably In terms of SAC 4, assets are future economic benefits. The cost or value of an asset is not a measure of the future economic benefits to be derived from the asset. The cost or value of an asset is a measure of some property or characteristic, possessed in the past or at present. If the essence of an asset is the present existence of probable future economic benefits, it would seem to follow that any reliable measurement test should be made in terms of these probable future economic benefits and not in terms of the benefits sacrificed.

It is probable that the reliable measurement test is focused on a cost or value to exclude internally developed goodwill from a statement of financial position. The 'concept of goodwill as an asset is the same regardless of whether it has been purchased in an exchange transaction or generated internally. However, purchased goodwill can be measured more reliably, on the basis of the amount paid for it, than can internally generated goodwill which is not capable of being measured reliably' (AASB 1013, para. 5.1.2). Here again is an example of circular reasoning in which the accounting concept of reliable measurement appears to have been derived from a predetermined accounting standard purportedly derived from the concept.

In the case of a non-current asset (and, in fact, any asset), the carrying amount reported in a statement of financial position as a cost, deemed cost, residual cost, value or residual value cannot exceed its recoverable amount (AASB 1010, para. 5.1). The recoverable amount of an asset is the 'net amount expected to be recovered through the cash inflows and outflows arising from its continued use and subsequent disposal' (AASB 1010, para. 9.1). Thus the recoverable amount of an asset is that portion of the carrying amount that will probably be recovered from the net future economic benefits to be derived from its use or disposal.

As an example of the application of this recoverability test, at each reporting date, the carrying amount of acquired goodwill must be reviewed to ensure that it is not in excess of its recoverable amount. The cost of acquiring the goodwill is not relevant to this determination and thus, subsequent to the date of acquisition and necessarily at the reporting date, has no relevance to the reliable measurement test. At every reporting date, a value has to be determined for the purchased goodwill, which, by definition, is the net future economic benefit to be derived from unidentifiable elements. As total goodwill comprises self-developed unidentifiable elements and acquired unidentifiable elements, the valuation of acquired goodwill must necessarily involve identifying and distinguishing the future economic benefits derived from acquired unidentifiables—surely a daunting task. If a value can be determined for acquired goodwill, it can be determined for internally developed goodwill.

The conceptual framework does not specify the property or characteristic of assets that should be measured in financial reporting—and it is likely to lead to consistency in the setting of standards. Due to the lack of such a concept, in various circumstances, amounts reported as assets values in a statement of financial position have been:

1. *market entry values*, being costs at the dates of acquisitions or current replacement costs, or residuals of market entry values;
2. *market exit values* for assets to be disposed of in the market, being net disposal values;
3. *opportunity costs*, being net disposal values for assets, which are not intended for disposal in the market, as in the case of agricultural produce which is to be converted into secondary products; or
4. *deemed costs*, being a composite of market exit values and market entry values, as in the case of agricultural assets, which are dependent assets—dependent for value on their environment.

Apart from the rights that are recognized as assets on some valuation basis, there are rights which are not recognized because of the issue of accounting standards that are deliberately designed to ensure non-recognition—leased assets and the rights to the results of successful research and development projects. The useful lives of depreciable assets are uncertain, with the assets often continuing in use after being written off. Although a depreciable asset, other than deferred research and development costs, may be resurrected as an asset, there is no requirement for its recognition.

If the focus is moved to the future economic benefits that an entity expects to derive from a resource right, value then becomes determinable in terms of those future economic benefits. Only if the future economic benefits can be measured reliably can an asset have a value that can be measured reliably.

Liabilities

From SAC 4, in terms of essential characteristics, liabilities are defined as (para. 48): 'future sacrifices of economic benefits, that the entity is presently obliged to make to other entities as a result of past transactions or events'.

A liability is recognized in the statement of financial position when and only when (para. 65):

(a) it is probable that the future sacrifice of economic benefits will be required; and
(b) the amount of the liability can be measured reliably.

As the characteristics and recognition criteria are expressed: *A future sacrifice of economic benefits that an entity is presently obliged to make to other entities as a result of past transactions or events is recognized as a liability if it is probable that the future sacrifice of economic benefits will be required and the amount of the sacrifice can be measured reliably.*

As the essential characteristic of a liability is the existence of a present obligation (para. 51), perhaps a clearer expression would be: *An obligation to sacrifice future economic benefits, that an entity has to other entities as a result of past transactions or events, is recognized as a liability if it is probable that the future sacrifice of economic benefits will be required and the amount of the sacrifice can be measured reliably.*

Obligations, Liabilities and Sacrifices As in the case of assets, a clear distinction should be made between present obligations and liabilities. All present obligations are not necessarily recognized as liabilities. For a present obligation to be recognized

as a liability, it must meet certain recognition criteria. From paragraph 65 of SAC 4, if a liability is recognized when certain criteria are met, there is the implication that there are other liabilities, which are not recognized. There is also a distinction between the present obligation, which is a duty or responsibility of an entity to act in a certain way (para. 51), and the sacrifice of economic benefits that is expected to result from that obligation.

Do present obligations necessarily involve 'other entities', which appear to be defined as 'external parties' (para. 60)? This particular concept seems to have been invoked to deny the recognition of part or all of an annual overhaul of property, plant and equipment as a liability. The sacrifice of future economic benefits to overhaul property, plant and equipment is not a liability, since there is no 'present obligation to an external party' (para. 60). The anticipated costs of restructuring an acquired entity are recognized as a liability if there is a demonstrable commitment to restructuring (Urgent Issues Group, 1996), although the mere intention to sacrifice economic benefits in the future is not sufficient to give rise to a liability (SAC 4, para. 59). An entity must have little discretion to avoid the sacrifice of future economic benefits.

There would seem to be no substantial difference between a demonstrable commitment to restructure and a demonstrable commitment to overhaul property, plant and equipment. The obligation to overhaul property, plant and equipment arises as a result of past events and is thus a present obligation. It is an obligation because an entity has a responsibility to perform the overhaul.

An executory contract involves an exchange of promises and does not give rise to obligations, which would satisfy the criteria for recognition as liabilities. There is no present obligation to sacrifice future economic benefits. Liabilities may arise from a breach of an executory contract but not from the contract. Contracts for the lease of rights are not executory contracts and do involve present obligations. A lessee acquires control of the leased rights over the lease term in exchange for a present obligation to sacrifice future economic benefits equivalent to the lease rental commitments. A range of leased rights has been denied recognition as assets through the simple device of substituting ownership for control as a criterion. The adoption of ownership as a criterion has allowed the more entrepreneurial directors (and auditors) to adopt a form over substance approach to the recognition of leased rights and thus deny the recognition of a wide range of leased rights as assets.

In order to deny recognition of the present obligation for lease rentals as a liability, there would need to be a change in the characteristics and recognition criteria set out in SAC 4. In some financial reports, the obligations recognized as liabilities are substantially less than the obligations that should be, but are not, recognized as liabilities. The involvement of a lessor may only involve the provision of a finance facility, as in the case of a direct financing lease. Although borrowing costs include finance charges in respect of lease liabilities (AASB 1036, para. 11.1.2), the finance facility provided by a lessor is not necessarily considered a finance facility to the lessee. An entity must disclose its used and unused loan facilities at the reporting date (AASB 1026, para. 12.2) but, in many financial reports, these disclosures appear to be restricted to bank loan facilities.

Past Transactions or Events If, at a reporting date, an entity has been affected by a past event, regardless of whether that event is a special event or some other event, the present obligation to sacrifice economic benefits must exist in the conditions at the reporting date. Thus, as in the case of liabilities, it would seem much simpler to accept as a characteristic that a present obligation must exist *in the conditions existing at the reporting date.*

Revenues and Expenses

In terms of SAC 4, revenues are defined as (para. 111): 'inflows or other enhancements, or savings in outflows, of future economic benefits that result in an increase in equity during the reporting period; in the form of increases in assets or reductions in liabilities of the entity; other than those relating to contributions by owners, that result in an increase in equity during the reporting period'. Revenues are recognized when and only when (para. 125):

(a) it is probable that the inflow or other enhancement or saving in outflows of future economic benefits has occurred; and
(b) those inflow or other enhancement or saving in outflows of future economic benefits can be measured reliably.

Revenues and Gains and Losses There is no distinction made between the revenues from the major ongoing activities, the gains and losses from peripheral activities, and the gains and losses from organizational changes. The IAS framework distinguishes between the revenue from major ongoing activities and the gains and losses from peripheral activities (paras 74 and 75). In SAC 4, the focus is said to be on the gross inflows or other enhancements of future economic benefits and gross savings in outflows (para. 112). Following this approach, the redemption of $10,000,000 in debenture borrowings at a loss of $10,000 would see $10,000,000 reported as debenture revenue and $10,010,000 reported as debenture expense. In appraising the performance of an entity, it could be expected that the initial focus of an investor is on the statement of financial performance. The inclusion in profits from ordinary activities of profits from continuing operations, peripheral gains and losses and gains and losses from organizational changes hardly leads to relevant information being provided to an investor. Surely it is not up to the investor to rummage through notes to a statement to extract relevant information.

Not all enhancements of assets are recognized as revenues even if those enhancements are probable and can be measured reliably. The enhancements of grapevines in a vineyard are recognized as revenue if those enhancements are probable and can be measured reliably (AASB 1037, para. 5.4). The enhancements of vineyard land and other vineyard non-vine assets cannot be recognized as revenue even though they can be measured reliably (AASB 1040, para. 6.2). This seems an illogical application of an accounting concept aimed at preserving a traditional method of accounting in the case of certain non-current assets whilst applying the basic concepts to other non-current assets. It is particularly illogical in its application to vineyards, where the enhancement in the net market value of vines is recognized as revenue in spite of the vines not having a market value, with any attributed value being dependent on the value attributed to the vineyard land.

Recognition of Inflows or Other Enhancements or Savings in Outflows The recognition of revenue involves the recognition of an asset or enhancement of an asset, or the settlement or reduction of a liability. Thus it would seem to follow that, for revenue to be recognized, the criteria for the recognition of an asset or liability must also be met. If revenue recognition involves the enhancement of a right, the revenue will be recognized, and the enhancement of the right will be recognized, if it is probable that the enhancement will be derived and the enhancement has a cost or value that can be measured reliably.

EXPENSES

In terms of SAC 4, expenses are defined as (para. 117): 'consumptions or losses of future economic benefits in the form of reductions in assets or increases in liabilities of the entity, other than those relating to distributions to owners, that result in a decrease in equity during the reporting period'. Expenses are recognized when and only when (para. 132):

(a) it is probable that the consumption or loss of future economic benefits resulting in a reduction in assets and/or an increase in liabilities has occurred; and
(b) the consumption or loss of future economic benefits can be measured reliably.

Again there is no distinction between the expenses incurred in the ongoing major operations of an entity and the losses incurred in peripheral activities and from organizational changes.

CONCLUDING COMMENTS

Accepting the general thrust of the statement of accounting concepts SAC 4, there seem to some fundamental problems in construction and application.

1. Certain concepts in the statement appear to have been constructed to justify traditional preconceived accounting standards—an approach that must inevitably lead to inconsistencies in accounting standards.
2. The concepts are disregarded in the setting of specific accounting standards, as in the case of leases, without any supportable justification.
3. In endeavouring to establish conceptual criteria for the 'logical' derivation of an accounting standard, there also seems to be a disregard of specific sections of the Corporations Law.

Although the primary purpose of the CF is its function as a guide in developing and reviewing accounting standards, the framework will be ineffective if inconsistent traditional accounting is accommodated through a series of political patches. A number of suggested amendments to SAC 4 are set out Appendix A. The amendments do not alter the thrust of the CF, but are intended to eliminate 'concepts' set in place to justify certain traditional practices and to bring the concepts of assets into harmony with other concepts. With these amendments, certain items, such as acquired goodwill, which are currently reported as assets, would no longer be

reported as such. The rights acquired from all material leasing contracts would be reported as assets.

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APPENDIX A

CHARACTERISTICS AND RECOGNITION CRITERIA: STATEMENT OF FINANCIAL POSITION

SAC 4	IAS framework	Suggested amendment
Panel A: Assets		
Essential characteristics (a) Future economic benefits (b) Controlled by the entity (c) As a result of past transactions or other past events	Essential characteristics (a) Resource (b) Controlled by the enterprise (c) As a result of past events, from which (d) Future economic benefits are expected to flow to the enterprise	Essential characteristics (a) Rights; (b) Controlled by the entity; (c) In the conditions at the reporting date; from which (d) Identifiable future economic benefits are expected to flow to the entity
Recognition criteria (a) Probable that the future economic benefits embodied in the asset will eventuate; and the asset (b) Possesses a cost or other value that can be measured reliably	Recognition criteria (a) Probable that the future economic benefits will flow to the enterprise; and the asset (b) Has a cost or value that can be measured reliably	Recognition criteria (a) Probable that identifiable future economic benefits will flow to the entity; and (b) The amount of the future economic benefits can be measured reliably
Panel B: Liabilities		
Essential characteristics (a) Future sacrifices of economic benefits (b) Entity presently obliged to make to other entities (c) As a result of past transactions or other past events	Essential characteristics (a) Obligations (b) Presently owed by the enterprise (c) As a result of past events (d) Resulting in the expected sacrifice of future economic benefits	Essential characteristics (a) Present obligations (b) Incurred or assumed by an entity (c) In the conditions at the reporting date (d) To sacrifice of future economic benefits
Recognition criteria (a) Probable that the future sacrifice economic benefits will be required; and (b) The amount of the sacrifice can be measured reliably	Recognition criteria (a) Probable that a sacrifice of future economic benefits will result from settlement of the obligation; and (b) The amount of the sacrifice can be measured reliably	Recognition criteria (a) Probable that future economic benefits will be sacrificed by the entity; and (b) The amount of the sacrifice can be measured reliably
Panel C: Equity		
Essential characteristics (a) Residual interest in the assets of an entity after deduction of its liabilities	Essential characteristics (a) Residual interest in the assets of an enterprise after deducting all its liabilities	Essential characteristics (a) Residual interest; (b) In the conditions at the reporting date; (c) In the net future economic benefits flowing from rights and obligations
Recognition criteria	Recognition criteria (a) Assets and liabilities meet the tests for recognition	Recognition criteria (a) Rights meet the tests for recognition as assets; and obligations meet the tests for recognition as liabilities.

APPENDIX B

CHARACTERISTICS AND RECOGNITION CRITERIA: STATEMENT OF PERFORMANCE

SAC 4	IAS framework	Suggested amendment
Panel A: Revenues		
Essential characteristics (a) Inflows or other enhancements, or savings in outflows, of future economic benefits; (b) In the form of increases in assets or reductions of liabilities of the entity; (c) Other than those relating to contributions by owners that result in an increase in equity during the reporting period.	Essential characteristics (a) Increases in economic benefits (b) Arising from ordinary activities during an accounting period; (c) In the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity; (d) Other than those relating to equity participants.	Essential characteristics (a) Increases in the net assets of an entity; (b) From the major ongoing activities of the entity during the period ending on the reporting date; (c) Other than from transactions with the holders of equity interest
Recognition criteria (a) Probable that the inflow or other enhancement or savings in outflows of future economic benefits has occurred; and (b) The amount of the inflow or other enhancement or savings of future economic benefits can be measured reliably.	Recognition criteria (a) Increase in future economic benefits related to an increase in an asset or a decrease of a liability; and (b) Increase can be measured reliably.	Recognition criteria (a) Conditions satisfied for recognition of an asset or increase in an asset, or of the settlement or reduction of a liability.
Panel B: Expenses		
Essential characteristics (a) Consumptions or losses of future economic benefits; (b) In the form of reductions in assets or increases in liabilities of the entity; (c) Other than those relating to distributions to owners that result in a decrease in equity during the reporting period.	Essential characteristics (a) Decreases in economic benefits (b) Arising from ordinary activities during an accounting period; (c) In the form of outflows or depletions of assets or incurrence of liabilities that result in decreases in equity; (d) Other than those relating to equity participants.	Essential characteristics (a) Decreases in the net assets of an entity; (b) From the major ongoing activities of the entity during the period ending on the reporting date; (c) Other than from transactions with the holders of the equity interest
Recognition criteria (a) Probable that the consumption or loss of future economic benefits has occurred; and (b) The amount of the consumption or loss of future economic benefits can be measured reliably.	Recognition criteria (a) Increase in future economic benefits related to an increase in an asset or a decrease of a liability; and (b) Increase can be measured reliably.	Recognition criteria (a) Conditions satisfied for recognition of the loss or decrease in an asset, or of the incurrence or increase of a liability.

APPENDIX B

(CONTINUED)

SAC 4	IAS framework	Suggested amendment
Panel C: Gains and Losses		
	Essential characteristics	Essential characteristics
	No clear criteria	(a) Increase in the net assets of an entity; (b) From the peripheral activities of the entity and from organizational changes during the period ending on the reporting date; (c) Other than from transactions with the holders of the equity interest
	Recognition criteria	Recognition criteria
	No clear criteria	(a) Conditions satisfied for recognition of changes in assets and liabilities.

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Reporting Performance: Comprehensive Income and its Components

The underlying question raised in this article is: why is the accounting profession's conceptual framework (CF) so authoritative when it is conceptually incoherent? A supplementary question is how can 'conceptually robust' accounting standards be derived from an incoherent framework? This article draws on Page and Spira's (1999) contrasting framework metaphors to suggest that the *appearance* of conceptual robustness is more important than the reality, and illustrates the point with the International Accounting Standards Board's (IASB's) progress report on its reporting performance project. Some inherent weaknesses in the move towards internationally enforceable financial regulations have been acknowledged, but this article suggests the IASB's project demonstrates two additional weaknesses: internal incoherence, and the potential for political ends to drive supposedly technical regulations.

Key words: Accounting standards, international; Conceptual framework; FASB; Financial performance; IASB; Income.

When the Financial Accounting Standards Board (FASB) embarked on its conceptual framework (CF) project, it anticipated that the CF would provide an authoritative and 'coherent system of interrelated objectives and fundamentals' (Storey and Storey, 1998, p. 85, quoting CON6). The FASB attempted to build a technical CF from which it would derive accounting standards for the business sector (Kirk, 1988) and expected that preparers, auditors and users of financial reports would also find the framework useful. The CF's lack of coherence is recognized (see, e.g., Page and Spira, 1999; Godfrey *et al.*, 2000, pp. 430–1), yet it remains the authoritative statement underlying accounting standards. Other accounting standard setters, including the International Accounting Standards Board's (IASB) predecessor, the International Accounting Standards Committee, have also adopted it, albeit with minor variations.

The IASB expects that its current project on reporting performance will lead to a 'conceptually robust' accounting standard which addresses disclosure issues in the statement of comprehensive income (IASB, 2002, p. 2). How the CF's conceptual incoherence will assist in achieving such an outcome is not explained. This article suggests that the IASB's expectations require further consideration of the framework underpinning the CF, and that this has significant implications for

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the move towards enforceable global accounting standards. The following metaphors may assist in that consideration.

THE CF METAPHOR

The idea of a conceptual *framework* is capable of multiple metaphorical interpretations. Page and Spira (1999) contrasted two interpretations: a framework which functions like a Meccano (toy construction) set; and a framework which functions like underwear. The FASB's early explanation and intended use of the CF suggested the Meccano set metaphor. Pieces of a Meccano set are constructed for assembly with other pieces of Meccano, but not with pieces from other sets of toys. A Meccano set may be assembled to form a rigid structure, with each part supporting and reinforcing the others. If this structure is sound, it may function as a framework, and it will provide a solid foundation for external cladding. The rigidity of the structure means that the cladding is also rigid, and that changes to the framework will necessitate changes to the cladding. In accounting terms, the different parts of the CF must be drawn from the same accounting theory and, in the event of changes to the CF, changes to the accounting standards derived from it will also be necessary.

The FASB might have anticipated a Meccano set CF, but commentators quickly pointed out that the CF could not function in this manner because accounting practices and standards result from a combination of 'political and economic forces' (Heath, 1988, p. 104). Even if the CF itself were coherent, the FASB had still committed

> [a] fundamental error . . . the mistaken notion that it is possible to avoid, minimize, or control debate on basic issues by prior agreement on abstract principles . . . The flaw in the conceptual framework is simply that it attempts to improve the form and technique of reasoning, and in disciplines that deal with complex human affairs, the form and technique of reasoning are tangential matters . . . The attempt to base accounting decisions on definitions risks . . . mechanical decision-making . . . For all its logical rigor, it is irrational. (Gerboth, 1987, pp. 1–2)

Some FASB members agreed with this assessment, acknowledging that the CF is useful but not sufficient on its own and that their early expectations were over-optimistic (Kirk, 1988). The CF provides a useful starting point, but the political nature of accounting standard setting is such that a purely technical solution may be unacceptable (Beresford, 1988; Kirk, 1988; Brown, 1990; Wyatt, 1990). However, the Meccano set metaphor still seems powerful, possibly because it may seem obvious to accountants (Page and Spira, 1999), but also, perhaps, because key developers of the CF seem to suggest it. Storey and Storey (1998), for example, urge accounting standard setters and practitioners to apply consistently the theoretical ideas contained in the CF.

An alternative metaphor of a framework as underwear suggests that underwear contains, helps to conceal, and improves the appearance or image of the body. Typically the material used for underwear is flexible, allowing the underwear to stretch or shrink to fit, and help to mould, the body's shape. Matching underwear

is unnecessary: different, non-matching pieces of underwear may be used in combination or discarded at will. Allowing occasional glimpses of attractive individual pieces of underwear may help to project the desired image, although tattered underwear should remain concealed. In accounting terms, a CF contains the body of accounting practices and standards and helps to project a respectable public image of financial reports, financial reporting, and, indeed, the accounting profession (Page and Spira, 1999). The idea that the underwear does not need to match implies that conceptual coherence is unnecessary. The CF's function is to help make 'accounting standards easier to sell to preparers and users and to make standards more difficult to attack' (p. 492).

The underwear metaphor may seem far-fetched, but it is surprisingly similar to Scott's (1990) more conventional explanation of a system for reporting. Scott regards any such system as multi-layered: the first layer is a conceptual instruments layer which defines key components of the intended reports; the second layer is a technical instruments layer which specifies reporting methods, and in the process interprets and re-interprets the conceptual instruments; and the third layer is the situated interpretations layer which leaves sufficient flexibility for practitioners producing reports to resolve ambiguities. Scott argues that conceptual coherence should not be expected either of the reports produced from such a system or of the system itself, not even of the conceptual instruments layer. Eventually, however, any such system becomes unwieldy and must be replaced (Rhodes, 1997). If Scott's three layers are compared with the accounting standard setters' CF (conceptual instruments), accounting standards (technical instruments) and financial report production process (situated interpretations), his dismissal of conceptual coherence is consistent with the underwear metaphor.

THE FASB'S CF

The developers of the FASB's CF quickly became regarded as reformers (Miller, 1990). They focused the CF on equity investors who require information useful for their investment decisions, who are already sophisticated users of financial reports, and who therefore have no need of education. The decision-usefulness focus implied that investors would require current or forward-looking information (Page and Spira, 1999) whereas accounting in the United States was predominantly based on historical costs.

The Concept of Income in the FASB's CF

Arguably, the FASB's early idea of a CF implied the adoption of a single coherent set of accounting concepts. However, development of the CF followed considerable debate over competing theories, with the concept of income (financial performance) at the heart of this debate (Chambers, 1975). Which one of two mutually exclusive concepts of income (income as a measure of performance of an enterprise and its management, or income as an enhancement of investor wealth) should be adopted in the CF was highly controversial at the time and remains so today (Storey and Storey, 1998, p. 76).

Both concepts of income have long historical roots: the measure of performance of an enterprise seems to derive from England's early agricultural economy, while the enhancement of wealth concept of income derives from seventeenth-century merchant shipping days (see Zheng, 2001, for a full explanation). The measure of performance concept regards income as arising only from purposeful activities, particularly the recurring usage of physical non-current (or fixed) capital (Fisher, 1965), while other gains or losses apparently unrelated to the purposeful activities are excluded. Capital seems to be a physical idea because this concept of income distinguishes between the cost of consuming the service units embodied in the capital, and changes in the value of that capital. Depreciation, regarded as the consumption of service units, is a valid cost to be charged against income. It implies the use of cost-based entry values for assets such as historical cost or, possibly, replacement cost and makes clear the need for cost allocations and matching to determine income. Changes in the value of capital are excluded from income.

The enhancement of wealth concept of income focuses on income from the investor's perspective. Income is the monetary difference between the amount invested and the amount subsequently distributed or available for distribution. The amount invested is equity (or net assets) and income, regardless of how it arises, accrues to investors in proportion to their stockholding. Because the focus is on increases in investors' wealth this concept of income implies that valuation is important and that matching costs with revenues is irrelevant. Therefore, it implies the use of realizable values for all assets and liabilities.

The FASB's reformers rejected the popular matching-based measure of performance concept of income and adopted the enhancement of wealth concept for the CF. Primacy was placed on assets and liabilities, linking them with cash inflows or outflows. The CF defines comprehensive income as the change in owners' equity (CON6, para. 70), excluding changes in ownership by way of contributions or distributions. Consequently, income should be the change in the value of those assets and liabilities, but this requires adoption of an appropriate valuation base—a step which the FASB was apparently not prepared to take immediately (Jones and Aiken, 1994, p. 201).

Counter-reformers halted the CF project with CON5, which took no position on the valuation base, merely acknowledging several possibilities and proposing that accounting should continue to evolve (Miller, 1990).[1] The counter-reformers scored another success when the FASB revised CON3 to incorporate the non-business sector in the CF. In that revision, the definitions of assets and liabilities were unnecessarily weakened by softening the required link between cash inflows and outflows (Sanborn, 1987). Even so, the enhancement of wealth concept of income removed any justification for matching, thus also removing any justification for regarding depreciation as consumption (Miller, 1990, p. 26). This is because the analytical starting point for analysis is whether the value of an asset or liability has changed. Unless depreciation is regarded as recording value changes, the credit

[1] The conceptual framework reformers denied accusations that they attempted to move away from historical cost, and objected to refusals to believe those denials (Storey and Storey, pp. 135–7, 139).

side of any depreciation entry is neither an asset nor a liability, but seems instead to be a 'what-you-may-call-it' which has no place in the balance sheet or a Statement of Financial Position (Storey and Storey, 1998, pp. 63, 87).

CON5's failure to resolve the valuation issue and retention of the historical cost base is clearly a source of theoretical incoherence in a CF which has adopted an enhancement of wealth concept of income. CON5's counter-reformers also attempted to reinstate the measure of performance concept of income (for explanation, see Storey and Storey, 1998, pp. 150–4). Several times CON5 refers to, but does not define, earnings as a component of net income which is, in turn, a component of comprehensive income.

ACCOUNTING STANDARD SETTING AND COMPONENTS OF COMPREHENSIVE INCOME

Users of financial reports take little part in the accounting standard setting process. Rather, the process is conducted in the language of the CF and is dominated by preparers of financial reports and auditors, often lobbying on behalf of preparer clients (Beresford, 1993). Even though the political nature of the standard setting process means that accounting standards will not necessarily be consistent with the CF, it is unlikely that standard setters will admit any inconsistency. Consequently, the basis upon which a particular conclusion is reached may, on closer scrutiny, be found to be weak or erroneous (see, e.g., Newberry, 1995, 2001; Mozes, 1998). The political nature of accounting standard setting receives little or no acknowledgment.

Because the CF does not address the issue, it has effectively delegated to accounting standard setters as a display issue the specification of components of comprehensive income (CON6, para. 64). In the absence of any standard, this has left preparers of financial reports with considerable discretion over display issues, although the FASB slightly reduced that discretion in 1997 with FAS 130: *Reporting Comprehensive Income.* That standard identified two components of comprehensive income: net income and other comprehensive income. It specified (para. 17) what should be classified as other comprehensive income ('foreign currency items; minimum pension liability adjustments, and unrealized gains and losses on certain investments in debt and equity securities'), and left with preparers of financial reports the ability to determine sub-components within net income. Two related developments show how the discretion left with preparers has seriously compromised financial reporting.

First, preparers of financial reports have used the discretion available to them to develop and promote their own sub-components within net income in an attempt to direct user attention upward and away from both the comprehensive income total and the net income sub-total. These sub-components, often referred to by preparers as 'pro forma' figures, and which have become known as a 'Street' measure of earnings because of Wall Street analysts' acceptance of those figures, have gradually excluded an increasing number of items, mostly expenses. The expenses excluded may consist of major expenses such as restructuring costs and even marketing costs that, it is argued, are non-recurring. Expenses have also been

chiselled out of an older measure of performance idea of earnings which reported earnings before interest and tax (EBIT) on the basis that the expenses excluded were irrelevant to performance evaluation. Over time, this measure changed to exclude non-cash items such as depreciation and amortization, and the acronym changed to EBITDA. Some companies have gone to such 'ridiculous lengths' to exclude expenses and inflate their pro forma figures that former SEC chief accountant Lynn Turner used the acronym EBBS, meaning 'everything but the bad stuff' to describe the changing pro forma figures (Levitt, 2002, p. 152). Recent research has found that despite doubts which have been voiced about the validity of these Street earnings measures, and despite suggestions that preparers may be deceiving users, the Street measures now have greater explanatory power in relation to changes in share price than the FASB's net income measure (GAAP earnings) (Bradshaw and Sloan, 2002). This is dangerous, however, because 'GAAP earnings generally preserve the long-run correspondence between earnings and cash flow' while Street earnings measures do not. The expenses and losses ignored by focusing on the inflated Street measures still 'represent very real operating costs that are associated with past, present or future cash outflow' (p. 24). Consequently, investors using the Street measures to price companies risk overvaluing the shares. Arguably, changes in other reporting practices and analysts' involvement in the financial markets help to explain how and why the emergence of Street measures has occurred (Bradshaw and Sloan, 2002; Levitt, 2002). It also illustrates what happens when accounting standards fail to meet the expectations of users.

Advances in information technology mean that today companies' earnings announcements are widely disseminated to investors before investors receive, or have access to, the audited financial reports. During the 1990s, the earnings announcements increasingly emphasized the Street earnings measures while downplaying the GAAP measure (Bradshaw and Sloan, 2002). At the same time, the FASB attempted to retain the measure of performance approach to reporting income by requiring continued application of the realization principle, while adopting enhancement of wealth ideas in, for example, asset impairment requirements. This promoted less systematic depreciation practices and an increase in occasional large asset impairment charges which were excluded from the Street earnings measure (Bradshaw and Sloan, 2002). In addition, analysts were increasingly compromised by their firms' desire for continued income from corporate clients and major institutional investors (Levitt, 2002). As was evident in the case of Enron, supposedly neutral analysts have acted as cheerleaders for shares, thus boosting offering prices for issuing companies, or allegedly assisting major institutional investors by keeping prices of inferior shares high while the major investors offload their holdings. In this environment, it has been alleged analysts also ceased or considerably reduced their efforts to examine the detail in published financial reports, and avoided any public challenge to the companies' 'positive spin', even when privately describing the companies' shares in uncomplimentary terms (Levitt, 2002, pp. 65–8; see, e.g., comment about Merrill Lynch star analyst Henry Blodget).

The development of Street earnings measures appears to have posed two problems for accounting standard setters. First, the failure to resolve the debate over

the concept of income at the time of developing the CF seems to have led to an ongoing battle between standard setters and preparers. Preparers' continued determination to use and advocate an alternative measure of performance concept of income challenges what remains of the reformers' enhancement of wealth concept of income in the CF. The FASB's failure or, possibly, its inability to reduce preparers' discretion beyond the GAAP net income measure has allowed opportunistic preparers to develop the Street earnings measures and emphasize those measures in the published financial reports.

Secondly, despite the assumption in the CF that users are or should be sufficiently sophisticated to understand financial reports and the rejection of any need to educate users, the emergence of Street measures demonstrates the point that users might not be as sophisticated as assumed and that they can be educated to use alternative measures. That is, opportunistic preparers appear to have educated even users who should be sufficiently skilled to know better to expect and use misleading Street earnings measures. At the same time, the combined application of the measure of performance practices (e.g., realization, depreciation) and enhancement of wealth practices (e.g., asset impairment) may mean that compliance with FASB requirements yields muddled information that is not useful, thus prompting analysts to extract numbers that they think are useful. The dilemma for accounting standard setters is that the CF's decision-usefulness focus implies that users should receive the information the users regard as useful, even if it differs from the information accounting standard setters think users should find useful (Beresford, 1993). Now, with increasing movement towards an international set of accounting standards, the problem of regulating components of income within the statement of financial performance (and satisfying users' demands for useful information) has fallen to the IASB to resolve.

The IASB's Reporting Performance Project

IASB members must commit themselves to two objectives: achievement of the International Accounting Standards Committee (IASC) Foundation's objectives; and to 'serving the public interest through a private standard setting process'. The IASC Foundation's objectives include the development, 'in the public interest', of a 'single set of high quality, understandable and enforceable global accounting standards that require high quality, transparent and comparable information in financial statements and other financial reporting to help participants in the world's capital markets and other users to make economic decisions' (www.iasb.org.uk).[2] The development of internationally enforceable technical codes and standards is popular currently, but carries with it acknowledged weaknesses. These include incompatibility

[2] Although not mentioned on the IASB's web site, these objectives are similar to General Agreement on Trade in Services (GATS) undertakings which affect technical standards, including accounting standards. The GATS accountancy disciplines are scheduled to become effective in 2005 when the current GATS round concludes (Arnold, 2002)..This date coincides with that announced recently by Australia for the full adoption of IFRSs (Alfredson, 2003; Haswell and McKinnon, 2003; Howieson and Langfield-Smith, 2003; Miller, 2003). Compliance with IFRSs will be required by 2007, with voluntary adoption from 2005.

between different technical codes and standards, and incompatibility of technical standards with different countries' cultures and laws (Jordan and Majnoni, 2002). The IASB's reporting performance project reveals additional weaknesses.

According to the most recent project documentation (December 2002), the IASB undertook its reporting performance project because the preparer-defined (Street) measures of earnings are regarded as increasingly problematic, yet the comprehensive income figure is not 'particularly useful' (IASB, 2002, p. 1). Comprehensive income is an aggregate of various components of financial performance each of which provides different information to users. The IASB intends to develop from its reporting performance project 'a set of "performance reporting principles" that will provide a conceptually robust basis for the statement of comprehensive income' (p. 2).

The overriding objective of the reporting performance project is to achieve a format for the statement of comprehensive income which will 'categorize and display all income and expenses for the period in a way that enhances users' understanding of the entity's achieved performance and that assists users in forming expectations of future performance' (p. 2). A set of five working principles has been devised to guide the project in achieving its objective (p. 3). Two of those principles have been utilized to develop a proposed two-column form of financial statement with three vertical sub-totals.

The two columns facilitate the separate reporting of 're-measurements' of assets and liabilities from the revenues and expenses that are not re-measurements (principle 3). Revaluations, impairment losses and disposal gains or losses are to be displayed in the re-measurements column, and depreciation displayed in the other column. The three vertical sub-totals are business, financing and tax measures. The business and financing measures are intended to 'distinguish the return on total capital employed from the return on equity' (principle 1). Capital employed consists of the assets and liabilities needed to support a given level of operations and which must be financed. Interest expense is a finance cost although whether all interest expense is regarded in this way is not clear. Figure 1 shows the intended layout of the report.

Capital employed implies a physical concept of capital maintenance while the separation of depreciation from re-measurement changes similarly implies that

FIGURE 1

PROPOSED MATRIX FOR REPORTING PERFORMANCE (FROM IASB, 2002)

	Total	Income before re-measurements	Re-measurements
Business	XX	X	X
Financing	XX		
Tax	X	X	X
Comprehensive income	XX	XX	XX

consumption of capital is a physical concept which is fundamentally different from changes in the value of that capital. Taken in isolation, project documentation on the IASB's reporting performance project suggests that the IASB intends to develop the measure of performance of an enterprise concept of income within, and therefore as a component of, the enhancement of wealth concept of comprehensive income.

Although the IASB's reporting performance project excludes issues of recognition and measurement, other projects do address those issues and raise questions whether the IASB intends to embed the measure of performance concept within the enhancement of wealth concept, or whether the IASB has failed to recognize its mixed application of these different concepts of income. For example, the IASB's revenue recognition project, which must affect all of the revenue figures reported in the performance report, seems to reject the measure of performance concept applied in the reporting performance project. The revenue recognition project report explains that the 'Board is exploring an approach that focuses on changes in assets and liabilities and is not over-ridden by tests based on notions of an earnings process' (IASB, 2003, p. 1). At the same time, comment on the improvements project, and especially developments to IAS 16, *Property, Plant and Equipment*, suggest an attempt to apply a measure of performance concept of depreciation as physical consumption in conjunction with an enhancement of wealth concept of asset impairment. These conceptually inconsistent developments will feed in to the figures reported in the IASB's performance report for which the IASB, in its drive to achieve a single set of high quality, understandable standards, intends to find a conceptually robust basis.

DISCUSSION AND CONCLUSION

Much of the legitimacy of private sector standard setting bodies rests on perceptions that the rules are purely technical matters. Accounting standard setters, for example, ostensibly acting in the public interest, project an appearance of applying a coherent technical body of knowledge (the CF) to derive neutral accounting standards.[3] A key problem for accounting standard setters is that the CF is incoherent, at least partly because it conceals a long-standing and still unsettled battle over concepts of income: the measure of performance concept, and the enhancement of wealth concept. Worse, it is no longer clear that standard setters are fully aware of that battle or even understand the CF.

The definitions of elements of financial statements in the CF were drawn from normative accounting theory developed over a period of about half a century ranging from Paton (1922) and Canning (1929) to Sprouse and Moonitz (1962). In turn, that normative theory as illustrated in the above discussion of the major competing concepts of income drew on very long historical roots. The definitions

[3] Of course the body of knowledge is based on underlying assumptions that are not technical, but cultural or political. For example, the CF assumes private property rights and market-style exchange transactions.

of elements of financial reports are clearly based on the enhancement of wealth concept of comprehensive income but, following a paradigm shift in the early 1970s when the focus of accounting studies moved to positive accounting theory, normative theorizing declined (Watts, 1995). Evidence suggests that few standard setters remain who understand or wish to apply the normative theory from which the CF has been drawn, while other standard setters may be applying theoretical ideas more closely allied to positive accounting theory, such as institutional theory which, applied normatively, involves devising technical rules to achieve particular strategic purposes (see, e.g., Israel, 1991, and Zeff's 2003 comments about standard setting developments in the United States during the 1990s). In other words, rules that seem purely technical may be devised in an effort to achieve covert political ends. Arguably, accounting standard setters are left with a normatively derived CF that they no longer understand or wish to take seriously, and an increasingly politicized standard setting process in which accounting standards have themselves become political tools. This may explain, at least in part, the incoherence outlined above—a CF which embodies an enhancement of wealth concept and a reporting performance development which is incompatible with that concept in that it purports to yield measures of enterprise performance. Furthermore, within the purported measure of performance, recognition and measurement developments in one area apply an enhancement of wealth concept and in another apply both incompatible concepts of income at once.

Whether the IASB can develop a conceptually robust basis to support its reporting performance project depends on the framework metaphor adopted. If the CF is regarded as a Meccano set, then conceptual robustness is impossible. The enhancement of wealth concept of comprehensive income adopts the investors' perspective, accords primacy to assets and liabilities, rejects matching and, effectively, regards income as an increase in realizable values of assets and liabilities. In contrast, the measure of performance of an enterprise concept of income requires matching and cost-based measures to identify the earnings left after particular costs, including depreciation, have been allocated (matched) against revenues. Even if the reporting performance project is examined in isolation, the Meccano set metaphor suggests that no conceptually robust basis can be found for embedding one concept of income inside the other because the two concepts are mutually exclusive. There is little to suggest, however, that the IASB is consciously attempting to embed one concept of income within the other. The IASB is attempting to pursue several projects at once, and even a brief examination of other projects that will affect the performance report suggests the two mutually exclusive concepts of income are being used indiscriminately. Hence, the most likely outcome is that the underwear metaphor will continue to be the most appropriate characterization of the framework underlying accounting standards.

If the CF is intended to be more like a Meccano set, then the IASB's reporting performance project, as well as related projects, demonstrates that the CF both has pieces missing and contains pieces from a different toy set. It is therefore inconsistent and incoherent and requires extensive revision. Any such revision will require the use of normative accounting theory (based on empirically derived objectives)

to facilitate a decision on the concept of income to be adopted, and the consistent development of that concept throughout the CF. This means either following through with the asset and liability focused enhancement of wealth concept of income or completing the reversion to the revenue and expense-focused measure of performance of an enterprise concept of income. The former will require clarification of the valuation implications, a reconsideration of the earlier decision to assume educated users, and a demonstration of how the enhancement of wealth concept is decision useful. The latter will require clarification of the point that this implies cost based measures, and a revision of all of the definitions of elements of financial reports. The IASB has announced its intention to review and revise the CF (www.iasb.org.uk/cmt/), but there are some drawbacks in utilizing the Meccano set metaphor. First, the very idea of such a rigid technical framework is itself dated and conflicts with other views about the nature of a system for reporting (e.g., Scott, 1990). Also, it fails to acknowledge the changing legal, social and economic developments in the reporting environment. A coherent but outdated and invalid CF is little better than no CF at all. Second, even if it were possible to devise a consistent, coherent and currently valid CF, the development of accounting standards consistent with it should not be expected. This is because accounting standard setting is a political process and expectations that standards may be set by logical deduction from a CF are unrealistic (Gerboth, 1987).

Scrutiny of accounting standards purportedly derived from the CF reveals that the stated basis for conclusions in accounting standards typically uses CF terminology to suggest that the CF has been applied *as if* it is a Meccano set. Seldom do accounting standard setters acknowledge departures from the CF, even though closer scrutiny reveals weak arguments (see, e.g., Newberry, 1995, 2001; Mozes, 1998) which suggest that the CF terminology *actually* is used like underwear. This subterfuge conceals the political nature of accounting standard setting and, by presenting accounting standards as technical developments, helps to legitimize the continuation of private-sector accounting standard setting.

The underwear metaphor provides scope to allow the IASB to claim conceptual robustness for its format for reporting performance. The IASB could allow different pieces of underwear to show, although preferably not at the same time, but it would need to keep the tattered underwear concealed. First, the definitions of elements of financial reports and the financial capital maintenance enhancement of wealth concept of income may be shown to support the comprehensive income basis for the whole report of financial performance. Then, the decision-usefulness, user-oriented focus adopted in the CF may be shown to support the measure of performance ideas used to develop the proposed components of income. A quick peep at the valuation base may even be allowed because the IASB talks about a current value which, although it *seems* to be an exit value, may be interpreted in several ways, including cost based values (interview with IASB official, October 2002). The underwear metaphor therefore allows the process of accounting standard setting to appear as if it is a purely technical, rather than a political, process.

As is well recognized in disciplines allied to positive accounting theory, such as institutional theory, regulatory bodies must be prepared constantly to defend and

legitimize their actions in order to retain their regulatory role (Horn, 1995). For accounting standard setters, this legitimizing process involves claims of neutrality, impartiality, and a desire to serve the public interest by producing technical accounting standards that will help to represent economic reality, rather than political standards intended to sway decisions in a particular predetermined direction (Beresford, 1997; Reither, 1997). The IASB may be doing its best to achieve these ideals, but the accounting standard setting process has developed into one where standard setters act as if they are applying a coherent CF, even if the CF is invalid and incoherent and even if they neither understand the CF nor actually apply it. Exposure of tattered underwear may endanger the standard setter's carefully projected respectable image. Perhaps undesirable public exposure could occur if answers were demanded to a few key questions. For example, with the IASB's reporting performance project, appropriate questions might include: Exactly what is meant by current value? If current value is a realizable value, then what is depreciation and why should it be separated from other re-measurement changes? If current value is a cost-based measure, then what is an impairment loss and why should it be separated from depreciation? Also, given the primacy accorded by the CF to assets and liabilities, exactly what is the nature of the credit balance of the accumulated depreciation account? The CF allows no room in the balance sheet for 'what-you-may-call-its'. When claims of conceptual consistency are inadequate to conceal the tattered pieces of the conceptual underwear then standard setters clearly have a problem.

In the CF's early days, expectations were that a CF would help to reduce the political lobbying inherent in accounting standard setting because such political activities would be exposed. No doubt the CF has narrowed the scope for political lobbying because it reduces the number of potential lobbyists to those who can argue in the language of the CF. It seems, however, to bestow privileges upon those few (the preparers), increasing the potential for the development of accounting standards that benefit them to the detriment of others, especially the users supposedly intended to benefit from the CF. This development might not have been anticipated, but it does suggest that in some ways the CF today is achieving the opposite of what was intended.

The underwear metaphor for the CF shows how technical words may be recited while ignoring aspects of the legal, social and economic context within which accounting standards should be shaped. Such recitations conceal the highly political nature of accounting standard setting, and avoid any identification of those likely to win and those likely to lose from any accounting standard. Institutional theory suggests that powerful interest groups want highly technical rules because they conceal such information and are, therefore, easy to introduce (Horn, 1995). However, critics of institutional theory regard abstruse rule-making processes as subversive and potentially technically dysfunctional (Moe, 1990a, 1990b), while even proponents of internationally enforceable technical codes and standards acknowledge weaknesses, including incompatibility across different codes, incompatibility with different countries' cultures and laws, and the potential for 'widespread regulatory hazard' (Jordan and Majnoni, 2002, p. 19).

The IASB's reporting performance project demonstrates two additional weaknesses in this global trend to enforceable international standards. First, from a technical perspective, the acknowledged technical weakness of incompatibility across different codes suggests a major challenge facing the international financial institutions promoting global financial integration, because in February 2000 those institutions were dealing with forty-three different technical codes and considering a further twenty-three for inclusion in this integrated global rules project (Jordan and Majnoni, 2002, p. 19). With so many codes, the espoused attempt to remove inter-country regulatory arbitrage opportunities provides inter-code arbitrage opportunities for exploitation world-wide. The reporting performance project demonstrates an additional weakness of intra-code incompatibility, thus increasing the potential for widespread regulatory hazard. Even if the standards were purely technical matters, the apparently indiscriminate use of mutually exclusive concepts of income to concoct a statement of performance has little chance of resulting in high quality, understandable accounting standards, because such standards would require intra-code compatibility. If intra-code compatibility is not feasible, inter-code compatibility can only be a dangerous fantasy.

Second, proponents of enforceable international financial codes and standards suggest that the various financial rules are technical and should, therefore, be set by technical experts. The idea is misleading because technical rules can be devised to achieve covert political ends (Horn, 1995), a point Jordan and Majnoni (2002) acknowledge indirectly (p. 5–6). As is already well recognized in accounting, accounting standard setting is a highly political activity in which conceptual and technical coherence are 'tangential matters' (Gerboth, 1987, p. 2). The IASB may be doing its best to conduct a technical process, but inevitably the process is political and has the effect of reducing even further the number of potential lobbyists thus, albeit unintentionally, bestowing further privileges upon a few. The stakes are high because the outcome will be one set of rules for application world-wide. The drive to 'transparent' standards must be matched by transparency in the political process by which those standards are devised. To its credit, the IASB has revealed some politics, for example in relation to its share-based payments project. For all of the IASB's projects, however, the desire for transparency requires that accounting standards not be projected as mere technicalities, and that the politics not be concealed by a technical veneer.

Perhaps, before this drive to achieve a single set of international accounting standards proceeds further, we should acknowledge that a scheme to develop a single internationally enforceable set of accounting standards—or any of the other supposedly technical standards that comprise the integrated global rules project—requires the preposterous assumption that each country's cultural, legal and economic environment should be changed to fit the standards. The technical appearance of these standards is only superficial. Claims that the public interest will be served by devising and enforcing such a single international set of accounting standards, and that the standards will be high quality and understandable, are no less irrational than expectations that a CF can and should be used as if it is a Meccano set.

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Objectives of Financial Reporting

Conceptual framework documents can be evaluated in terms of four criteria: clarity of expression, consistency of assumptions with knowledge of commercial practices and the behaviour of external users of accounting information, internal consistency, and comprehensiveness as a guide to financial reporting practice. On this basis, the Australian Accounting Research Foundation's (AARF's) Statements of Accounting Concepts No. 2 (AARF, 1990a), *Objectives of General Purpose Financial Reporting*, is found wanting. SAC 2 is inappropriately drafted in terms of normative statements, and incorporates considerable ambiguity because of its allusions to inconsistent objectives without guidance as to weightings or how apparently inconsistent statements might be reconciled. Supporting analysis is rudimentary at best and it relies on an inappropriate use of terminology, while statements lack empirical support and are not linked to any analysis of users' needs for information. Six recommendations for the redrafting of a more narrowly focused SAC 2 (concentrating on annual reports by profit-seeking entities) are presented.

Key words: Accounting; Concepts; Objectives.

The production of conceptual framework (CF) documents by various standard setters represents a victory of sorts for three decades of debate among contributors to the 'decision-usefulness' literature—names like Kenneth MacNeal, William Paton, Maurice Moonitz, Bob Sterling, George Staubus and Ray Chambers. Of these writers, those who were contemporaries did not agree about much. But they did agree that accounting was a service function, that accounting should and could provide information relevant to decision makers, and there was a lot wrong with accounting as it was practised. Some of them also suggested that the meaning of key accounting concepts was unclear.

Indeed, browsing through early texts and commentaries, a notable feature is the failure of the pre-1970s professional and textbook literature to provide rigorous definitions of key accounting concepts, beyond offering vague statements along the lines that assets are 'things of value' (Finney, 1932; Bell and Graham, 1937; Corbin, 1964) or items 'invested in a business enterprise' (Rorem, 1930) or represent 'forms of invested capital' (Mason *et al.*, 1959). Contributors to the decision-usefulness debate steadily picked away and eventually (in the eyes of many) demolished old dictum that accounting was about 'matching costs and revenues' and an approach that left individual accountants to make judgments as to what pattern of matching was appropriate in the circumstances.

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As it stands, the current Australian CF reflects compromises between differing points of view. The rationale presented in these documents incorporates vague language and circular reasoning (see Booth, 2003). The content of some of these documents virtually predetermines the preservation of a repertoire of accounting practices which have often been found wanting. Indeed, recent experiences of corporate failures and distress have highlighted the differences in expectations between preparers and users of financial reports; some corporations have suddenly written off hundreds of millions of dollars of 'assets' which were previously reported in a manner which *prima facie* was consistent with accounting standards and the CF on which those standards were based. (E.g., Bond Corporation, Harris Scarfe and HIH Insurance recorded as 'assets' brands, licences, tax benefits, marketing or other capitalized expenditure, and the 'acquisition costs' of writing insurance policies. See Clarke *et al.*, 2003, for a review.)

The Financial Accounting Standards Board's (FASB's) initiatives in developing the original CF project were a response to criticism, mainly from the academic community, of the arbitrary and politicized nature of the American Institute of Certified Public Accountant's (AICPA's) Accounting Principles Board (APB) and its approach to rule-making (see, e.g., Horngren, 1973; Thackray, 1976). The involvement in the early stages of the project of some key academics who had participated in the decision-usefulness debate (Sprouse, Staubus, Sterling) may have helped promote efforts to provide definitions of key concepts.

From any commonsense perspective, it was rather absurd for a profession to claim responsibility and expertise in the production of financial reports without having developed accepted or authoritative definitions of concepts like 'asset', 'liability', 'revenue', 'expense'. And it remains anomalous—and a surprise to many—that the profession has yet to develop an accepted or authoritative approach to measurement.

So the FASB's late-1970s initiatives represented progress—even if the project was left incomplete.

It is timely therefore to re-visit the CF, to see whether it can be refined and developed. This contribution focuses on a single element of the Australian CF—SAC 2, *Objective of General Purpose Financial Reporting* (AARF, 1990a).[1] It is argued that the SAC 2 statement (and, for that matter, corresponding documents issued by the International Accounting Standards Board [IASB] and the FASB) warrant revision, in order to eliminate the ambiguity and inconsistency incorporated within those documents, and to make them more useful as a guide to standard setters and practitioners.

CONCEPTUAL FRAMEWORKS AND THEIR ROLE

A CF can assist regulatory or standard setting bodies by focusing attention on aspects of practice which are *prima facie* inconsistent with that framework. This

[1] This anticle primarily refers to the Australian Accounting Research Foundation's documents but reference is also made to the IASC Framework (1989) and the FASB's Statements of Accounting Concepts (1978–1985)

might be expected to expedite rule-making by 'economizing effort' (Solomons, 1986) and possibly ensure that accounting rules exhibit a modicum of consistency. A CF can also serve as a guide to practitioners when they encounter new situations not encompassed by accounting standards.[2]

But therein lies the source of difficulties. CF documents can

- legitimize existing (and unsatisfactory) practices—and predetermine the outcome of standard setting processes; or
- establish the basis for the *improvement* of practice, by providing a coherent frame of reference for practitioners, and compelling standard setters to address whether specific rules will lead to the production of data that will satisfy the overall purpose of the financial reporting process.

If a CF started with a clear view about the function of financial reporting, and combined that with observations of commercial practice and the behaviour and interpretative capacities of readers of financial statements, then logical reasoning should produce a coherent and consistent set of statements which can establish the basis for the development of improved practices.

EVALUATING CONCEPTUAL FRAMEWORK DOCUMENTS

How then can CF documents be evaluated? It is easy for individuals to list points with which they agree or disagree. Practitioners (and even some academics, e.g., Lev and Zarowin, 1999) occasionally lament the fact that standards based on the CF are inconsistent with the matching principle. Others observe that accounting reports prepared in a manner consistent with the CF do not accord due attention to the interests of some stakeholders (notably employees)—with a particular concern being the level of aggregation of general purpose financial reports (see, e.g., Foley and Maunders, 1977; Clarke *et al.*, 1990; Clarke and Craig, 1991).

The approach adopted here is to look at the documents in terms of four criteria:

1. whether they are clearly expressed,[3] and use terminology in a manner which is consistent with usage in related technical literatures;
2. whether any assumptions are consistent with knowledge about commercial practices and the behaviour of external users of accounting information;
3. whether the documents, taken as a whole, are internally consistent; and
4. whether they provide a comprehensive or complete framework to guide financial reporting practice.

[2] The latter role has not been recognized in several discussions of CFs—see, e.g., Barton (1982) and Macve (1981).

[3] One might suppose that an *ambiguous* document would be less useful as a guide to practitioners or standard setters than a document which is clear and unambiguous. However, it is recognized that the issue of ambiguous documents by standard setters may well be used to claim achievement of a consensus, or to secure incremental change. One example of deliberate ambiguity is the prescription that assets be valued at 'fair value', a concept capable of a variety of interpretations.

If these four criteria were satisfied, a CF would be 'usable', in a practical sense, by both practitioners and regulators.

A FRAMEWORK FOR WHAT *FORM* OF FINANCIAL REPORTING?

At the outset, it may be worth asking ourselves what the CF is intended to cover—accounting in general, or financial reporting? If the latter, financial reporting for profit-seeking private sector entities? Or financial reporting by all forms of entities, including agencies (such as government departments) in the general government sector? Should 'financial reporting' be taken as including textual statements accompanying financial reports, and the presentation of performance indicators derived from financial and non-financial information only some of which may have been reported in aggregate form in financial statements? And should 'financial reporting' encompass interim reports, preliminary reports of financial results, and reports provided by entities whose securities are publicly traded, in terms of 'continuous disclosure' regimes?

In principle, it might be supposed that a CF that covers financial reporting for all forms of private sector and public sector entities would be more useful than one which is confined to (say) private sector business entities. Similarly, a framework that encompasses all forms of financial reporting, textual presentations and performance indicators would be more useful than one confined to annual financial statements. However, whether CF documents are more useful depends on whether breadth of coverage is achieved at the expense of rigour, the adoption of propositions lacks empirical support, or the propositions derived from that framework are demonstrably inconsistent with evidence about users' demand for different forms of information.

Similar concerns arise in the consideration of the coverage or generality of theories in the social sciences. Such theories may be narrow or extensive. Ultimately a general theory is to be preferred—but only if it provides a good basis for predicting phenomena.

Correspondingly it might be supposed that a CF which seeks to encompass all forms of financial reporting would be less useful or effective if it reflected a trade-off between generality and empirical support (or credibility).

It may be worth noting that different exercises in enunciating 'theory' (in the sense of propositions underlying the practice of accounting) have adopted differing objectives. Chambers (1955) suggested that separate theories might be developed for business accounting or government accounting—and later he focused on individual actors and business entities (Chambers, 1966). The AICPA-sponsored Moonitz (1961) and Sprouse and Moonitz (1962) studies were concerned with 'business enterprises'. The ASOBAT project (AAA, 1966), on the other hand, sought to set out received wisdom about the theory of accounting 'not only to business operated for profit, but also to the activities of individuals, fiduciaries, governmental units, charitable enterprises, and similar entities' (p. 2).

Different CF projects have reflected similar diversity. The FASB's original CF project focused on business enterprises but later, in a move apparently designed to

resist establishment of a separate public sector accounting standards board, it issued Concepts Statement 4 dealing with 'not for profit' entities. Australian Accounting Research Foundation (AARF) statements followed the FASB in seeking to provide a framework covering all entities in all sectors. The International Accounting Standards Committee's (IASC's) framework (later adopted by the IASB) was less ambitious and was confined to 'all commercial, industrial and business reporting enterprises, whether in the public or private sectors' (para. 8).

WHY WASN'T SAC 2 LABELLED SAC 1?

Contrary to the analysis presented in a prior AARF-sponsored study (Barton, 1982), the Australian CF did not start from a statement of the purpose or function of financial reporting, but from a series of assertions about the concept of 'reporting entity'. These assertions essentially predetermined the content of standards on consolidation accounting, and also supported claims about the relevance of the subsequent statements in the CF to both the public and private sectors. Along the way SAC 1 (AARF, 1990b) incorporated some statements about the concept of 'accountability', although without bothering to define that term.

SAC 1 also adopted the FASB's notion of 'general purpose financial reporting' (1976, p. 4). Use of that terminology was consistent with prior literature in its presumption that some forms of financial reporting could produce information relevant to different stakeholders (or 'users'). However, the proposition that a specific set of reports would meet the supposed needs of *all* of those (potential) users was not self-evident. Indeed, accounting researchers have yet to identify and analyse the routine and non-routine judgments made by potential users. Some might argue that these subjects are matters for serious empirical investigation and analysis, so that financial reporting can be developed to better meet the needs of those users. Others (such as Demski, 1973) have claimed that no set of accounting rules will always rank accounting alternatives in a manner consistent with individual preferences and beliefs (though in an often overlooked comment added that this 'does not however necessarily imply that they never provide the desired result'). Moreover, Demski's analysis focused on alternative accounting treatments, and seemed to ignore the fact that accounting treatments in core financial statements could be supplemented with additional schedules (including cash flow statements—a form of reporting virtually unknown in the 1970s).

While academic research had yet to accumulate evidence about what forms of information are relevant to different judgments by different users (and even now that task is incomplete, and warrants updating as new commercial vehicles are invented), the authors of the CF were confidently able to assert that a general purpose report was (a) intended to meet the information needs of a wide range of users, and (b) that intention would be satisfied, and general purpose financial reports would satisfy, 'at least the minimum required quality' if they were compiled in accordance with Statements of Accounting Concepts and Accounting Standards (para. 9). At best, this was wishful thinking—particularly since the Statements of Accounting Concept did not (and still do not) represent an overall framework.

Having set the scene in SAC 1, SAC 2 then purported to set down the general objectives of financial reporting for reporting entities in both the public and private sectors. That step highlights the lack of research underpinning the CF, since an earlier AARF publication (Sutcliffe, 1985) had proposed that before AARF could develop standards for the public sector, it first needed to resolve or address some twenty-seven questions or issues through research projects. A research program of that form was neither completed nor even attempted before the AARF staff somehow found themselves capable of drafting firm pronouncements on these matters.

'OBJECTIVES' VERSUS 'FUNCTIONS'

The very use of the term 'objectives' might be questioned. Prior literature had repeatedly referred to the 'functions' or purposes of financial reporting or accounting —in varying degrees of generality. D. R. Scott (1973), for example, saw accounts as 'an instrument of administrative control' (p. 207) and referred to 'the control function of accounts' (pp. 203–5). Goldberg (1965) claimed that 'the principal functions in accounting are usually recognised as being those of recording, reporting and interpreting. But underlying all of these is the necessity of measuring' (p. 70).

Chambers (1966, p. 9) argued for the development of functional definitions of concepts:

> by a functional definition of a concept we mean a definition which makes explicit the usefulness of the concept for certain purposes. One way of accomplishing this explication is to make clear what activities or things are denoted by the concept and what purposes these activities (or things) serve

and duly provided a functional definition of accounting:

> We therefore define accounting functionally, as a method of retrospective and contemporary monetary calculation the purpose of which is to provide a continuous source of financial information as a guide to future action in markets.

It might seem pedantic to question the use of the term 'objectives' rather than 'functions' in relation to accounting or financial reporting, since the technical literature (with the notable exception of Staubus, 1961; the American Accounting Association's ASOBAT report, 1966, the AICPA's Trueblood Committee, 1973; and Sterling, 1979) had previously indicated a firm preference for the latter. It is a small point. But as Chambers observed: 'An objective is an aim or goal. It is commonly used of people or bodies of people. It can perhaps be used of things. But for the sake of clarity it seems preferable to speak of the "functions" of things or instruments' (1976, p. 83).

While discussing functions of human processes, one may contrast the different views of academics committed to trying to improve the utility of accounting and financial reporting, and those simply trying to explain the practice of accounting or

of other phenomena. The former view sees financial reporting as a 'service function' (Chambers, 1955). The latter view has been reflected in the statement that 'the function of financial statements is to reduce agency costs' (Watts, 1977), while Dopuch and Sunder (1986) provided a sample of ten 'objectives' that could be considered as 'functional interpretations of accounting objectives' (ranging from 'increase employment of accountants' to 'aid in enforcing anti-trust laws').

Agency theory has been claimed to 'lead to testable implications (predictions) about financial reporting behaviour' (Whittred *et al.*, 2000). It could be observed that, if the function of accounting was to reduce agency costs, then presumably the very first accounting standard issued would have dealt with the disclosure of managers' and directors' emoluments, and related party transactions. Yet the accounting profession was slow to address both of these issues—and its conduct could be seen as resisting the introduction of requirements for the disclosure of related party transactions (see Walker and Robinson, 1994).

Dopuch and Sunder (1986) denigrated the decision-usefulness theme and the view of accounting as a service function on the basis that the preferences of different stakeholders (the profession, management and users) may be too diverse to serve as a 'guide to policy'; that there may be no intersection between the preferences of interest groups; and that assumptions about 'user primacy' do not reflect 'the economic power of the suppliers in the market place' (p. 15). Citizens may be grateful that academics in other disciplines place greater weight on the values of science, and do not dismiss efforts to contribute to society on the ground that major economic interests may resist the introduction of new and superior ways of providing services to the community.

DRAFTING OF SAC 2

In comparison with FASB publications, the AARF (and IASC) exercises do not reflect carefully crafted prose.

SAC 2 expresses the 'objectives' of accounting in the form of normative statements.

It is difficult to understand why this approach was chosen. Possibly it was recognition of the fact that accounting, as practised, does not meet the most commonly stated proposition (provide decision-useful information to key users). As Kenneth MacNeal observed in 1939, 'accounting is not fully performing the service which it might perform' (p. xi). Possibly the normative drafting reflects AARF's original intention to make compliance with the CF mandatory—a stance that was initially supported by the Australian professional bodies, and later abandoned. More likely, perhaps, is that AARF just copied the FASB's drafting style.

But this drafting style weakens the import of the statement from a proposition about what is accepted as 'fact' to a proposition about what is considered an appropriate approach for practitioners (or standard setters) to follow.

Even if concepts statements are intended to shape accounting practice, then the drafting of SAC 2 is weak: it provides guidance as to what *should* be done rather than a directive as to what *shall* be done.

MULTIPLE OBJECTIVES?

SAC 2 presents multiple objectives. This creates no difficulties, so long as the several objectives are complementary. Chambers' (1976) effort to identify the functions of accounting listed no fewer than five (i.e., to inform on financial characteristics of firms; to inform currently from time to time; to inform on the aggregate financial features of firms; to inform completely on the financial consequences of all events and transactions period by period; to inform in a uniform manner for all firms). All five statements were drafted in such a way as to be complementary (and consistent with the claimed benefits of the CoCoA system). However, confusion may arise where a series of objectives are in conflict, or where there is doubt about the relative weight to be assigned to one rather than another objective.

That is the situation with SAC 2. One stated objective relates to the provision of relevant information to 'users'; a second relates to the provision of information to assist in the discharge of accountability.

Those who are familiar with the decision-usefulness literature will recognize that the former proposition has been interpreted as requiring the information of contemporary monetary information, including data about the current values of assets. The reference to 'discharge of accountability' can be read as implying a need for a report on 'stewardship' (which in turn implies the need for a historical record of past transactions, indicating historical cost rather than current values). These two objectives are, on their face, inconsistent—and no guidance is given in SAC 2 as to what weighting should be assigned to one or other objective, or how the two objectives might be reconciled (e.g., by confining 'stewardship' disclosures to notes or schedules which are to accompany, rather than be part of, the main financial reports).[4] Hence the presentation of these two potentially inconsistent objectives means that SAC 2 does not establish a clear framework for standard setters or an unambiguous guide for practitioners (a matter examined in more detail below).

CONTENT OF SAC 2

Unlike the FASB's effort, those responsible for drafting the Australian CF did not base their analysis on a review of research literature. The FASB, for example, undertook a relatively scholarly review of models of decision making (albeit, one which echoed much of Chambers' analysis of the environment of action, monetary exchange, monetary calculation, though without any direct acknowledgement) and the implications of the findings of 'capital market theory' for the kinds of information desired by investors (FASB, 1976).

In comparison, the analysis contained in the CF documents is rudimentary and is beset with inappropriate use of terminology. Many of the statements included in SAC 2 lack empirical support,

[4] The IASB CF similarly refers to accountability as an 'add on' objective—see para. 14.

SAC 2's formal statements of objectives provide other examples. SAC 2 incorporates three core propositions:

1. General purpose financial reporting shall provide information useful to users for making and evaluating decisions about the allocation of scarce resources.
2. Managements and governing bodies shall present general purpose financial reports in a manner which assists in discharging their accountability.
3. General purpose financial reports shall disclose information relevant to the assessment of performance, financial position, and financing and investing, including information about compliance.

In brief, Proposition 1:

- disregards well-trodden debates about what is meant by the concept of 'useful' —is information (like heroin) to be regarded as 'useful' simply because it is 'used'?
- disregards the preferences of academic researchers to refer to 'judgments' rather than 'decisions'—since judgments pre-date decisions, and because readers of financial information may make initial judgments but defer decisions. (Indeed, SAC 2 also referred to 'informed judgments' but ignored this notion in its summarization of key propositions.)

Proposition 2 adopts a somewhat narrow concept of accountability—focusing on 'compliance'. Admittedly these core propositions should be read in conjunction with prior discussion and explanations. SAC 1 referred to accountability as involving the provision of information about 'the allocation of scarce resources' (para. 7). The commentary in SAC 2 then asserted:

> **accountability** means the responsibility to provide information to enable users to make informed judgements about the performance, financial position, financing and investing, and compliance of the reporting entity. (para. 5)

The three statements invoked (in total) three different (and distinct) notions of accountability.

- SAC 1 referred to reporting (after the event) about how resources had been allocated;
- the key proposition in SAC 2 focused on 'compliance'; and
- commentary in SAC 2 referred to the provision of financial information to enable judgments to be made about financial performance (and also about the extent to which parties had complied with [unspecified] regulatory requirements).

Plainly those who drafted SAC 2 were either careless in their use of language, or unfamiliar with the literature on differing concepts of 'accountability'—or simply followed the FASB into error. The Trueblood Committee had been told that the term 'accountability does not have separate, differing connotations depending on the types of entities and responsibilities involved' (Rosenfield, 1974, p. 125). That proposition was precisely and profoundly wrong. Public sector and private sector

entities exhibit quite different accountability relationships. Within the literature on concepts of accountability, Stewart (1984) is regarded as a seminal work. Stewart presents a 'ladder' (or continuum) of accountability relationships incorporating: 'probity and legality', 'process accountability', 'performance accountability', 'programme accountability' and 'policy accountability'. Several of these are not applicable to the private sector.

Without labouring the point, analyses of the concept of accountability commonly identify three elements, which can for brevity be expressed as questions: (a) who is accountable to whom? (b) for what are they accountable? and (c) what sanctions will be imposed in the event of failure?

It might be added that 'compliance' with regulatory requirements about financial reporting is not an element of accountability to 'users' but a specification of what entities must report about financial performance and other matters (such as the extent to which directors, senior managers and auditors have been remunerated).

AARF seems to have echoed the FASB's (1976) claims—and those of the AICPA (1973) Study Group—that 'stewardship' and 'accountability' could be regarded as synonyms, if stewardship in business enterprises was defined to encompass accountability for financial performance. Ijiri (1975) took a similar stance. Hence the AARF documents widened the coverage of SAC 2 to encompass accountability in the public sector (where 'stewardship' of funds allocated by parliament remains a key concern of financial reporting, while program accountability concerns the adequacy and effectiveness as well as the economy and efficiency of service delivery).

Proposition 3 compounds this confusion by asserting that financial statements of a particular form are to include information about 'the extent of compliance' (with unspecified regulatory requirements) when such information does not appear *in* financial statements but in assessments of *the adequacy of* financial statements. Further confusion arises from SAC 2's assertion that an objective of financial reporting is to 'disclose information relevant to the assessment of financial position'. By definition, a statement of financial position seeks to *represent* an entity's financial position. Yet, according to SAC 2, financial reporting is about *interpreting* or *assessing* financial position.

Moreover, while Proposition 3 focuses on past performance, it makes no mention of the role of financial reports in conveying information about the *risks* associated with changes in the values of assets and liabilities of a reporting entity, or in the profitability of operations over time. Historical information can indicate the manner in which financial position and performance have changed over time, particularly through showing the components of financial position at different dates, the sources of revenues and expenses, and the profitability of components of a business (in terms of segments or divisions). Arguably, the design of financial reports can assist readers to understand past changes and in turn to undertake subjective assessments of positive or adverse changes in future periods, which are relevant to their circumstances as stakeholders. Yet the AARF CF hardly mentioned the interest of users of financial reports in assessing the 'risks' associated with prospective returns.

LINKING 'OBJECTIVES' AND LISTS OF 'USERS'

If it is accepted that accounting is a service function, and that key outputs of the accounting process are the production of financial statements, a common and appropriate element of various CFs is that that a link is drawn between the production of financial statements and the 'users' (current, or prospective) of that information.

The FASB's statement of objectives of financial reporting CON1 does just that: the objective of financial reporting is to provide information to identified users—and CON1 refers to 'common needs' (para. 13). The IASC followed suit, and its work was later adopted by the IASB. Yet AARF skipped the step of analysing users' needs for information. Instead it offered only five brief paragraphs of general prose under the heading 'Purposes for which user groups require financial information'. One of these paragraphs dealt with resource providers, and included the assertion that the 'principal interests' of employees, suppliers, creditors and lenders was in an entity's capacity to meet its financial obligations.

Experience suggests that employees may well be interested in data relevant to enterprise bargaining (an interest commonly frustrated by a regime of differential disclosure based on the SAC 1 definition of 'reporting entity') and also in the capacity of distressed firms to satisfy claims for employee entitlements which crystalize when an entity fails (an interest not fully satisfied by contemporary reporting practices). Further, the information presented in consolidated statements is of little relevance to creditors—a matter recognized in an extensive literature (Walker, 1976; Walker *et al.*, 1982; Clarke and Dean, 1993) and regularly underlined when corporations fail and are liquidated.

The failure of SAC 2 to pay more than lip service to the information needs of different classes of stakeholder (or 'user') diminishes the credibility of the framework—and also makes it unlikely that SAC 2 can contribute to the development of standards consistent with its ambiguously drafted statements of objectives.

SUMMARY

Table 1 lists the three core propositions presented in SAC 2, and then presents in summary form an assessment of those propositions and of SAC 2 *vis à vis* other 'concepts statements', in terms of the four criteria identified above.

In focusing on these three core propositions, the table does not address other inconsistencies or infelicities in the text of SAC 2. Some of these have been mentioned above.

It is acknowledged that SAC 2 goes some way towards expressing accepted views about the domain of accounting. But inevitably the exercise of producing a CF was the product of political processes. Indeed, the various concepts statements are as much a product of political processes as any contentious accounting standard which threatens to change the way powerful corporations are required to calculate profit.

In most fields, policy making lags behind research—it may take decades before research findings in the physical or social sciences are translated into government

policies about environmental sustainability or greenhouse gases or school education or public transport. In the field of accounting, policy making is often years ahead of formal research findings—consider initiatives such as the introduction of cash flow reporting, or continuous disclosure, or audit independence. Researchers can be grateful, therefore, that the CF followed some prior academic research, even if it got a lot of it wrong. It also got a lot of it right. But it can be improved.

Nevertheless, if the AARF CF (or similar documents) is to be respected, the documents need to be better drafted, and better crafted.

RECOMMENDATIONS

1. The focus of the CF should be financial reporting by profit-seeking entities (since efforts to establish a framework to encompass financial reporting by all entities are premature, given the lack of research evidence or analysis on this subject. The claim that the framework is applicable to entities in the general government sector just lacks credibility).

   Alternatively: The CF should be amplified to clearly identify the information needs of stakeholders in general government entities and other not-for-profit entities, including a concern with information about 'service efforts and accomplishments', a focus on policy areas (rather than administrative units) of government, and the inclusion of indicators of operational performance in financial reports.
2. The focus should be on reporting in annual financial statements. The current CF does not establish the basis for developing rules relating to (say) continuous disclosure, and claims that it encompasses all forms of financial reporting also lack credibility.
3. The statements should not be drafted normatively—neither as a guideline ('should') nor a directive ('shall').
4. The statements should clearly distinguish the objectives of (a) guiding financial decision making, and (b) ensuring or contributing to accountability—and should give primacy to the former objective in the design of core financial statements for business entities (and associated notes). The statements should acknowledge that in some circumstances the requirements of accountability relationships may be satisfied: by the very act of compiling and filing or otherwise publishing financial statements; by supplementary disclosures incorporated in notes to those accounts; or in a host of other ways which may use data obtained from the accounting process but which do not involve 'financial reporting' *per se* (e.g., the manner in which public sector agencies are exposed to external evaluation of their 'effectiveness').
5. The CF documents should clarify the linkage between the objectives of financial reporting and the list of actual or potential 'users' by outlining both the purpose for which information may be used by separate classes of stakeholders (or potential stakeholders) and the information *routinely relevant* to those users (specifying the link between those claimed 'information needs' and financial information relating to specific entities).

TABLE 1

CORE PROPOSITIONS IN SAC 2

	Clarity of expression; consistency of terminology with prior literature	Validity of assumptions *re* individual behaviour, commercial conduct	Internal consistency or consistency with other SACs	Comprehensiveness of SACs as a guide to practice
1. General purpose financial reporting shall provide information useful to users for making and evaluating decisions about the allocation of scarce resources	Normative statements inappropriate Refers to 'decisions' not 'judgments' 'Usefulness' implies actual use	Fails to link 'users' with 'stakeholders' (e.g., employees, creditors) No evidence that (many) public sector stakeholders have any interest in the hypothetical financial position of 'departments' (mere administrative units of government)	Fails to link objectives of financial reporting with financial assessments commonly undertaken by all stakeholders Objective 1 may be inconsistent with Objective 2	Fails to indicate how to resolve inconsistent needs of different classes of 'user' (cf FASB's reference to 'common needs') Fails to indicate how Objective 1 and Objective 2 may be reconciled
2. Managements and governing bodies shall present general purpose financial reports in a manner which assists in discharging their accountability	Normative statements inappropriate Term 'accountability' refers to a relationship between two or more parties, and latter parties not identified. Moreover, accountability relationships require different forms of reporting on financial and operational performance—not addressed	Laws and other regulations establish forms of accountability which do not require accrual general purpose financial reports (e.g., stewardship of trustees; assessments of economy, efficiency and effectiveness in the public sector)	Objective 1 may be inconsistent with Objective 2	Fails to indicate how Objective 1 and Objective 2 may be reconciled Fails to establish a framework for accountability applicable to general government agencies, or not-for-profit entities (e.g., information about operational performance)

3. General purpose financial reports shall disclose information relevant to the assessment of performance, financial position, and financing and investing, including information about compliance	Normative statements inappropriate Not clear whether statements *re* contents of 'reports' encompass notes and supplementary schedules Financial reports 'represent' financial position (not 'information relevant to assessment of financial position') Ambiguity of term 'assessment'—what forms of assessment? Ambiguity of references to 'performance'—financial or operational? Reference to 'compliance' confuses function of financial reporting with specific regulatory requirements	Financial reporting cannot provide *all* information relevant to a wide range of judgments Preparation of financial reports may constitute 'compliance', not 'information about compliance' Ignores fact that many potential users of financial statements are concerned with assessing *risk*	Objective 3 is open ended Fails to identify basis for determining what forms of financial and non-financial information should be disclosed Fails to address users' interest in risk factors regarding changes in financial position or prospective income

6. The CF documents should refer to the objective of presenting information that will enable readers to assess the *risks* associated with changes in an entity's assets or liabilities, risks associated with changes in the value of those items, the risks associated with trends in financial and operational performance, and 'information risks' associated with the judgments made in the course or recognizing or valuing assets or liabilities.

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Measurement: A Way Forward

Australia has a long tradition of using methods of valuation which depart from the traditional 'historical cost' model—and this has steadily been reflected in regulatory requirements and practices for different industries. However, while many forms of market value accounting have been introduced into a variety of accounting standards, the Australian Accounting Standards Board's conceptual framework (CF) has not led these changes, nor provided any substantive guidance on measurement issues. This article suggests criteria that can be used to select among accounting measurement alternatives.

Key words: Accounting; CF; Concepts; Measurement.

The question, 'What measurement basis is appropriate in accounting?' has been raised many times for many decades—but not resolved. In this journal, Chambers (1998) revisited his early 1972 foray into the subject. This article continues the path to resolution.

Australian accounting is unusual in its tolerance of a range of measurement approaches. During the 1960s and 1970s, changes in asset values meant that balance sheets often contained outdated figures. During the 1960s, a spate of company failures drew attention to the way that cost-based asset measurement could misrepresent the financial circumstances of firms. During the 1970s, the activities of company raiders highlighted the way that balance sheet figures of property-rich firms often understated the current values of assets (see Chambers, 1973). These activities in turn encouraged many firms to revalue assets upwards—a practice readily accepted by the profession and regulators alike (see Walker and Hartman, 1973). Successive economic cycles have highlighted weaknesses in accounting practices, and set the stage for regulatory changes which have often required either the use of market values as a 'ceiling' for balance sheet values, or required additional, supplementary disclosures regarding current market values of assets.

Australian academics contributed heavily to international debate during the 1970s about the choice of valuation bases—particularly the work of Chambers (1966), Gynther (1966) and Mathews and Grant (1958). The profession, for its part, responded to a period of high inflation by exploring the possibilities of introducing some form of 'current value accounting', though in that regard the profession's Australian Accounting Research Foundation (AARF) heavily influenced the debate by promoting the use of replacement-based valuations, in what was then known as

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'current cost accounting'. Three exposure drafts were released in quick succession (ED 7, *Accounting for Changes in the Purchasing Power of Money*, in December 1974; ED 9, *A Method of Current Value Accounting*, in June 1975; ED 10, *The Recognition of Gains and Losses on Holding Monetary Resources in the Context of Current Value Accounting*, in July 1978). A Statement of Provisional Accounting Standards DPS 1.1, *Current Cost Accounting*, was issued in 1977, accompanied by a lengthy 'Explanatory Statement'. In 1980 ED 15, *Current Cost Accounting Omnibus Exposure Draft*, appeared, followed by a *Provisional Accounting Standard*, SAP 1, in November 1983 (it was later amended in 1989).

SAP 1 remains in force, but was virtually ignored by the private sector. However, during the 1980s the application of full-scale accrual accounting to public trading enterprises and general government agencies saw SAP 1 'dusted off' and part of its contents utilized in guidelines for asset valuation issued by a committee established by the then Industry Commission, in terms of an agreement established between the Council of Australian Governments (encompassing Commonwealth, State/Territory governments, and representatives of local governments) (see Steering Committee, 1994).

In parallel with these developments, in the 1980s Australia's Companies Act and Codes (and later the 1990 Commonwealth Corporations Act) required listed public companies and borrowing corporations to ensure that financial statements provide current market value information in certain circumstances. The Companies Act and Codes required these entities to provide

> Such information and explanations as will prevent the financial statements from being misleading where any non-current assets are reported at an amount that, having regard to an asset's value to the company as a going concern, exceeds the amount that it would have been reasonable for the company to spend to acquire the asset as at the reporting date. (subsection 295.4)

Mention might also be made of requirements for property trusts and investment companies to use market values in asset measurement. For companies generally, Schedule 5 of the Corporations Law Regulations required disclosure of the market values of investments and the most recent valuation of land and buildings made within three years prior to balance date (a requirement which followed earlier U.K. company laws).

Since the 1990s a series of accounting standards and guidance releases issued by the profession incorporated requirements for the disclosure of exit prices for assets, while others suggested other forms of current value accounting to be used in financial statements. Standards covered: asset revaluations in the private sector; application of the recoverable amount test in the private sector; the use of selling prices for assets held by trustees of superannuation schemes, for general insurance activities, life insurance companies; self-generating and regenerating natural assets; and for the financial reporting of financial instruments; use of present values for employee entitlements, leases and monetary assets and liabilities; and use of replacement costs for infrastructure and heritage assets in the public sector. Standards include:

AAS 27, *Financial Reporting by Local Governments*
AAS 29, *Financial Reporting by Government Departments*
AAS 31, *Financial Reporting by Whole of Governments*
AAS 25, *Financial Reporting by Superannuation Plans*
AASB 1008, *Accounting for Leases*
AASB 1015, *Acquisition of Assets*
AASB 1023, *Financial Reporting of General Insurance Activities*
AASB 1028, *Employee Benefits*
AASB 1030, *Application of Accounting Standards to Financial Year Accounts and Consolidated Accounts of Disclosing Entities other Than Companies*
AASB 1032, *Specific Disclosures by Financial Institutions*
AASB 1033, *Presentation and Disclosure of Financial Instruments*
AASB 1037, *Self-Generating and Regenerating Assets*
AASB 1038, *Life Insurance Business*
AASB 1041, *Revaluation of Non-current Assets.*

Evidence of some government support for the use of market value accounting also appeared. In the late 1970s, the State of New South Wales had commissioned a report on corporate law reform which heavily promoted the use of exit values in company accounts (Accounting Standards Review Committee, 1978), but that initiative was largely repudiated by the profession. In 1997 the Commonwealth Department of Treasury embarked on a Corporate Law Economic Reform Program and its first discussion paper (CLERP 1) unambiguously advocated the use of selling prices as the foundation for the future development of accounting standards, stating that this system 'would provide a more informative means of financial reporting for investors, market participants and regulators' (p. 60). CLERP 1 further commented that the proposed standard setter, 'having regard to international developments, should seek to promote the use of market value accounting when developing and revising accounting standards that require the valuation of assets and liabilities' (p. 60).

The point that emerges from this extended preamble is that Australia has a long tradition of using methods of valuation which depart from the traditional historical cost model—and this has steadily been reflected in regulatory requirements for different industries. However, while many forms of market value accounting have now appeared in a variety of accounting standards, the accounting profession's conceptual framework (CF) has not led the change, or provided any real guidance on the measurement question.

Indeed, the profession's CF was being issued in instalments after 1990, broadly following the release of similar documents by the U.S.A.'s Financial Accounting Standards Board—even though the U.S.A. had long adopted quite different approaches, had followed different traditions to asset valuation, and (at least until the issue of FAS 33) eschewed any form of upward asset revaluations or even the disclosure of current values (see Walker, 1992).

The current situation is that the Australian CF does not include a statement on measurement. Some steps have been taken: in 1994 the AARF released a

public Invitation to Comment on its discussion paper 'Proposed Program for the Development of Concepts on Measurement of the Elements of Financial Statements', which was supposed to the lay the foundations for a Statement of Accounting Concepts (SAC 5) on measurement. This quoted extensively from the U.K. Accounting Standard's Board discussion paper entitled *The Role of Valuation in Financial Reporting* (1994), particularly its references to 'value to the business'. In 1998 AARF issued a 466 page monograph on 'measurement in financial accounting'. Since then the Commonwealth government has announced that Australia is to follow International Accounting Standards (IAS) standards—a stance which seems inconsistent with its CLERP 1 position which exhorts local standard setters to promote market value accounting.

MEASUREMENT AND THE CONCEPTUAL FRAMEWORK

As is widely acknowledged, without a set of statements dealing with measurement, the profession's CF is necessarily incomplete. Moreover, recall that SAC 4 states that assets and liabilities should only be recognized if they can be 'measured reliably'. Without a clear statement of what attribute of assets or liabilities is to be measured, and what is meant by the concept of 'reliability', those areas of the CF dealing with the definition and recognition of assets and liabilities are non-operational, or confused. Indeed, one reading of SAC 4 is that anything with some form of 'cost' or estimated 'replacement price' can be 'measured reliably'—so can be recognised as an asset—but that accountants might then select a different 'attribute' for valuation in an entity's financial reports. Witness the identification of 'goodwill' and its recording at 'cost less amortization'; or (one of the more farcical treatments to appear in the financial reports of listed entities) the sudden recognition of brand names which had been acquired or developed years earlier. As currently drafted, the CF legitimizes virtually any accounting treatment and excludes only a very few.

There is probably no disagreement that, without some specification of what properties (or 'attributes') of assets and liabilities are to be measured, the profession cannot claim to have presented a set of propositions which explain the basic concepts underpinning the preparation of statements of financial position, let alone the calculation of profit or loss.

While the AARF CF has yet to include a statement of accounting concepts dealing with measurement, the FASB has issued Statement of Accounting Concepts No. 5, dealing with *Recognition and Measurement in Financial Statements of Business Enterprises* (1984). The FASB effort is more notable for the way it has avoided rather than addressed issues concerning accounting measurement. Measurement issues were not discussed until about two-thirds of the way through the 34 page statement, when it is asserted: 'Items currently reported in financial statements are measured by different attributes, depending on the nature of the item and the relevance and reliability of the attribute measured. The Board expects the use of different attributes to continue' (para. 66). It is tempting to observe that comments such as this would be regarded as laughable in other disciplines, or even to the man in the street if the subject matter was more readily understood than

accounting. Consider, for example, the prospect of an engineer describing the measurements of a bridge as 100 metres long, 30 metres wide, mass 3,000 tonnes: total 3,130.

The first clause of the paragraph cited above from the FASB's SAC 5 spells out why there is a need for a statement on measurement; the second purports to describe reasons for the use of different 'attributes' and could well refer to habit, or convention, or muddled accounting standards. But the third clause—'the Board expects the use of different attributes to continue'—appears to reflect a complete failure to address key issues. The same stance is repeated shortly afterwards:

> The Board expects that nominal units of money will continue to be used to measure items recognized in financial statements. However, a change from present circumstances (for example, an increase in inflation to a level at which distortions become intolerable) might lead the Board to select another, more stable measurement scale. (para. 72)

How shall this be described? An avoidance of intellectual engagement? A stunning abdication of responsibility? The effective abandonment of the CF project? Or just the only outcome that could be expected from a deadlocked or unadventurous board?

It would be particularly disappointing if the FASB's CF (or the IASB's CF, given the Australian government's current policy of importing IASB standards) were to be translated to the Australian environment, for several reasons. First, as pointed out previously, while Australia has not issued its promised SAC 5 on measurement, it has long experience with the application of different valuation bases (particularly for assets) in financial reporting. Whereas the U.S.A.'s FASB could only note that some inventories are valued at 'current cost', Australia is accustomed to firms revaluing assets upwards to estimates of resale prices or 'directors' valuations'. Australia also has a decade or more experience in the wholesale application of current replacement prices (or derivatives, such as 'deprival' or 'MEERA' values) to the valuation of infrastructure assets in the public sector, particularly for public utilities (see Walker *et al.*, 2000), but also for general government agencies.

In short, one might paraphrase the FASB's statements as follows: The Australian profession expects the use of current values in asset valuation to continue. All the more reason to address rather than avoid issues of measurement, and to formally incorporate concepts statements on accounting measurement in a CF.

PROPERTIES (ATTRIBUTES) WHICH COULD BE SELECTED

The FASB noted that five different attributes are presently used in practice to value assets and liabilities:

Historical cost (historical proceeds)
Current cost
Current market value
Net realisable (settlement) value
Present (or discounted) value of future cash flows.

This categorization seems to be a deliberately inadequate description of methods used in practice.

First, in referring to 'historical cost', it ignores the fact that the more common measurement basis for assets is historical cost less depreciation, amortization, or other forms of allocation. One may speculate why this basis was omitted, but it is inescapable that 'cost less sums allocated' is not an attribute of assets but only the product of accounting calculations. As noted by Abdel-Magrid (1979, p. 355):

> Conventional accounting numbers are derived from two processes: (1) the assignment of numbers to primary or elementary events, e.g. exchange transactions, and (2) calculation. Only the first process can be described as a measurement since the operations performed by the accountant at this stage are empirical.

Possibly 'cost less depreciation' could be rationalized as a surrogate for net realizable value for such items as motor vehicles or plant and equipment which generally decline in value over time. But depreciation or amortization techniques are also applied to a range of assets which are not saleable (e.g., expenditure on software that is tailored to the needs of a particular firm).

Second, the term 'current market value' may be variously interpreted as entry prices, exit prices or net proceeds.

Third, 'present values' are not in themselves attributes of assets or liabilities but desk calculations which may (in some circumstances) approximate the exit values of assets or the settlement values of liabilities.

Rather than present a contestable list of what is done 'in practice', it would be more appropriate for a CF to focus on *concepts*, and leave it to accounting standards to provide guidance to practitioners about the circumstances in which estimates or surrogate values might be used in the changeable circumstances of particular industries or markets.

CRITERIA FOR SELECTING ATTRIBUTES OF ASSETS OR LIABILITIES

One way to select among measurement attributes is to refer to the 'qualitative characteristics' of information. As noted above, the FASB has claimed that the choice of attributes 'in practice' is determined in part by 'the relevance and reliability of the attribute measured'.

References to the qualitative characteristics of 'relevance' and 'reliability' are something of a distraction in the CF, for differing reasons.

SAC 3, *Qualitative Characteristics of Financial Information*, currently defines 'relevance' as

> that quality of financial information which exists when that information influences decisions by users about the allocation of scarce resources by:
> (a) helping them form predictions about the outcomes of past, present or future events, and/or
> (b) confirming or correcting their past evaluations;
> and which enables users to assess the rendering of accountability by preparers.

Attributes of assets or liabilities are not 'relevant' in isolation. Any reference to 'relevance' in CF documents is only a short-cut expression for 'relevance to the judgments/decisions made by users'. But many attributes may be relevant to different users, at different times. If reports are to be to be of greatest usefulness to individual stakeholders, then arguably they should be relevant to the judgments they make most often—to *routine* decisions. If reports are to be useful to a *range* of stakeholders, then arguably they should contain information which is *commonly relevant* to their routine decisions of those nominated stakeholders.

Hence the first criterion proposed here is a restatement of the conventional references to relevance, as follows:

C1: whether financial information reflecting a specific attribute is *relevant to the routine decisions* of nominated stakeholders.

One implication of the adoption of this criterion is that consideration of 'attributes' should focus on the primary objective of financial reporting to provide information to assist decision making. While it is acknowledged that financial reporting may in itself satisfy certain requirements for accountability, or that the contents of those reports may readily incorporate 'accountability' disclosures, concerns about accountability are secondary to the main (assumed) objective of financial reporting. If information about specific attributes of assets or liabilities may be regarded as relevant for accountability purposes, and those attributes differ from those selected for primary use in financial statements, then that accountability information may be relegated to notes to the financial statements. (There are, of course, precedents for this approach: e.g., contemporary requirements for the disclosure of 'commitments' not recognized as liabilities, which leads to the presentation of data about the gross amounts of commitments for such items as finance leases or provisions for mine restoration which are recognized as present values or other sums in the accounts; and to the presentation of commitments for operating leases which are not recognized as 'liabilities'.)

SAC 3 currently defines 'reliability' as

> that quality of financial information which exists when that information can be depended upon to represent faithfully, and without bias or undue error, the transactions or events that either it purports to represent or could reasonably be expected to represent.

It is curious why AARF (and the FASB and IASB before it) chose to define a term like 'reliability' in a manner inconsistent with its usage in the social sciences (discussed below). Possibly the AARF definition was an effort to assert that measures of historical cost are 'reliable' (when in fact different accountants could arrive at different estimates of 'cost', depending on how they trace expenditures to the acquisition of an item, or how they track flows of fungible items). The drafting of the AARF definition also departs from considering attributes of 'assets' or 'liabilities' to refer to the faithful representation of transactions or events—an approach which really disguises the question of whether assets have an attribute called 'historical cost' which can be discoverable at a later point of time. The approach of referring

to whether there is a degree of correspondence between recorded information and underlying transactions implies that the AARF definition of reliability refers to the existence of documentation, rather than the measurement of attributes.

One might perhaps forgive the use of the concept of 'reliability' in SAC 3, given that it was an early CF document. But curiously, AARF's 1998 monograph on 'measurement in financial accounting' (claimed to reflect the author's 'expertise' in 'measurement theory') did not include a single reference to the theory of measurement in the sciences—or indeed any measurement issues outside of the literature of economics or accounting.

A more appropriate definition would be to regard measures as 'reliable' when they are repeatable, or stable over a variety of conditions. Nunnally refers to 'reliability' as the characteristic of measurements that exists: 'when different persons make the measurements on different occasions, with supposedly alternative instruments for measuring the same thing and when there are small variations in circumstances for making measurements that are not intended to influence results' (1978, p. 191). Similar explanations appear in a variety of literatures (e.g., Campbell and Stanley, 1963; Peter, 1979; Yin, 1994).

In this sense, the second proposed criterion is:

C2: whether financial information reflecting a specific attribute can be measured reliably.

One other characteristic that should be added to assist evaluation of measurement alternatives is the criterion of *interpretability*. This implies that the resulting statements should be understandable to readers. According to Sterling (1975, p. 44): 'When an attribute involves an arithmetical calculation, the "empirical interpretation" of that attribute requires that it be placed in an "if . . . then . . ." statement'. Thus, for an accounting model to be interpretable, it must be placed in an 'if . . . then . . .' statement to convey to the user an understanding of its meaning as well as to demonstrate one of its uses. For example, measures of 'density' are obtained by relating volume to mass. Someone, on being told that an object has a particular density, can therefore deduce or predict whether it would float or sink if placed in a fluid of a known density. But no such reasoning can be applied to the mathematical calculations involved in depreciating or amortizing the aggregate traced historical cost of assets. Written down historical cost does not predict the earnings that might be generated in a particular future period, or the price that could be obtained if the assets were sold, the liquidity or solvency of a firm or anything else about the conduct of business.

SAC 3 discusses this concept as 'understandability': that quality of financial information which exists when users of that information are able to comprehend its meaning. However, SAC 3 does not presume that financial reports should be prepared for the layman. Rather, financial reports should be constructed for users who are prepared to exercise 'diligence' in reviewing the accounts and who possess the necessary 'proficiency' to comprehend the significance of contemporary accounting practices. In other words, 'understandability' is supposed to refer to a quality of information, whereby it is interpretable by 'some readers'. On that basis,

hieroglyphics and the most sophisticated codes used by military intelligence are both 'understandable'.

A more appropriate concept of 'understandability' would be to relate the concept to the ordinary reader, with some basic knowledge of commercial affairs.

ASSETS: ATTRIBUTES WHICH COULD BE SELECTED

These (re-defined) characteristics of routine relevance, reliability and interpretability can be used to shed light on a preferred measurement basis. Table 1 provides a summary assessment of four supposed attributes of assets in terms of these criteria. The table includes reference to 'written down historical cost' (WDHC) because it is commonly used in practice, even though that concept refers to the product of an arithmetical calculation but fails the 'if . . . then' test. It also includes 'present values', which may pass the 'if . . . then' test under some circumstances.

As Chambers (1966) explained, at any *present* time, 'all past prices are simply a matter of history'. And excluding all past prices, only two prices remain which can used to measure the 'monetary equivalent of any non-monetary good in possession' —that is, the *buying price* and the *selling price.* The literature has laboured the pros and cons of either basis for many decades, even though Bell (1982, p. 43) reminded us that differences may be more rhetorical than substantive, and in any event 'let us all agree that having *any* of three current value accounting systems is enormously better than having none'.

While there are some strong commonalities between entry and exit price systems, it is noteworthy that Australian accounting standards have increasingly adopted an exit (selling) price approach (CLERP 1, p. 63).

Part of the explanation for the shift to market price accounting in Australia can be explained in terms of the relevance, reliability and interpretability of the system, and perhaps the cool reception given to replacement cost accounting by the business community since the 1970s.

If one assumes that the objectives of financial reporting are to provide information relevant to potential users of financial statements in making judgments about their future relationships with an entity, and the relationship between an entity and its environment, then information about cash and cash equivalents would have to figure prominently in these assessments. Logic and experience appear to have convinced regulators that information about the realizable value of assets is relevant to the *routine* decisions of diverse user groups. Further, the exit price model appears to be the only measurement alternative that is consistent with the actual *decision choices open to a firm.* After all, one can only sell, not buy, an asset already owned, and one can only repurchase (not sell) a long-term debt instrument already issued (see Bell, 1982).

As we have seen with the spate of recent corporate collapses, resource providers such as investors and creditors require routine and up-to-date information about the market value of assets relative to debts outstanding to assess ongoing liquidity and solvency (Altman, 2002). Users also need market prices information to better assess rates of return, asset backing per share, the current state of investments and

to assist the evaluation of management performance in terms of current sacrifices and opportunities. Exit prices are also becoming more accepted because they reduce the capacity of reporting entities to 'manage earnings'. Cash flow statements complement selling price balance sheets, the former reflecting actual cash positions and movements in cash, while the later reflects 'potential' cash resources or the cash conversion value of assets (Lee, 1984).

As Table 1 demonstrates, exit prices also appear to have some marked benefits in terms of reliability and interpretability of information *vis-à-vis* replacement costs.

In terms of the adopted definition of reliability, that is, measures which are 'repeatable, or stable over a variety of conditions', the exit value model is more likely to meet this requirement: it depends on one basis of valuation only—the current selling prices of assets. Conventional replacement cost accounting (Edwards and Bell, 1961) incorporates three valuation approaches as part of the comprehensive system —selling prices for assets intended to be sold, replacement costs for non-monetary assets and historical costs for monetary assets. The multiple valuation approach is compounded by the considerable difficulty in identifying an appropriate 'entry price' basis (i.e., is an asset to be replaced by an equivalent, identical or new asset?).

Interpretability may also be a further strength of exit price accounting, and a major reason behind its increasing support in Australia. As noted by Chambers, 'selling price based accounting is essentially simple' (1995, p. 85). The system eliminates the need for arbitrary cost allocations and circumvents the 'additivity' problem that multi-valuation approaches, such as replacement cost accounting, suffer from. Exit values can potentially offer a simple all-embracive solution to the highly complex and vexed problem of measurement. Chambers' (1995a, p. 814) reference to Albert Einstein is apt: 'we are seeking for the simplest possible system of thought which will bind together all the observed facts'. And in the words of Peirce, 'a few clear ideas are worth more than many confused ones' (1958, p. 117).

A system of exit price accounting is clearly not without limitations. Market prices may not be readily available for all kinds of assets (customized assets and intangibles are two obvious examples), or where an arm's-length transaction cannot be readily determined. Some of these problems may not be as acute as they appear. In his early works, Chambers recommended reporting a buying price for assets with no determinable market price. All proposed models of accounting and income calculation will suffer from the inevitable criticism that they cannot be all things to all people. This has been Australia's experience with replacement cost accounting, and partly explains the proliferation of different market value approaches in Australia. A practical solution to this problem is to allow supplementary disclosures of additional information using different valuation approaches, while utilizing exit values in the financial statements. But this is a matter for accounting standards or voluntary disclosures, not a CF.

MEASURE ASSETS SINGLY OR IN COMBINATION?

One issue of principle relating to asset measurement concerned the level of aggregation appropriate when undertaking asset valuations. In 1984 the Accounting

TABLE 1

EVALUATION OF ALTERNATIVE ASSET ATTRIBUTES

Routine decision	Criteria											
	Routinely relevant?				Reliable (similar measures from independent observers)?				Interpretable?			
	WDHC	PVs	Entry	Exit	WDHC	PVs	Entry	Exit	WDHC	PVs	Entry	Exit
Present/potential investors												
Sell/hold securities	X	✔	X[a]	✔	X	X	X[b]	✔[c]	X	✔	X	✔[d]
Profitability—EPS	X	✔	X[e]	✔	X	X	✔[f]	✔	X	X	X	✔
Security—NAB	X	X	X[g]	✔	X	X	X	✔	X	X	X	✔
Risk—gain/losses holding assets	X	✔	✔	✔	X	X	X	✔	X	✔	✔	✔
Risk—insolvency	X	X	X	✔	X[h]	X	X	✔	X	X	X	✔
Managerial performance	X[i]	X	✔[j]	✔	X	✔	✔	✔	X[k]	X	✔[l]	✔
Lenders with security												
Adequacy of security	X	X	X[m]	✔	X	X	X	✔	X	X	X	✔
Risk—loan default	X	X	X	✔	X	X	X	✔	X	X	X	✔
Capacity to repay debt	X	✔	X	✔	X	X	X	✔	X	✔	X	✔
Creditors												
Capacity to repay	X	✔	X	✔	X	X	X	✔	X	✔	X	✔
Adequacy of security	X	X	X	✔	X	X	X	✔	X	X	X	✔
Risk of default	X	X	X	✔	X	X	X	✔	X	X	X	✔
Employees												
Capacity—wage increases	X	X	✔[n]	✔	X	X	X	✔	X	X	✔	✔
Business continuity	X	X	✔	X[o]	X	X	X	X	X	X	✔	✔
Risk—employee entitlements	X	✔	X	✔	X	X	X	✔	X	✔	X	✔

[a] Key to sell/hold decisions is an assessment of the economic alternatives available to the firm. Entry price may be relevant in establishing potential asset values where an entity needs to replace specific assets. Exit prices are more useful for assessing capacity to pay dividends.
[b] Conventional replacement cost (cf Edwards and Bell, 1961) employs three different valuation approaches and requires assumptions to be made about which replacement cost to use. This is very likely to increase the variance in measures derived from independent observers.
[c] Convention exit price models (cf Chambers, 1966) are more reliable because they are based on only one valuation—selling prices. Selling prices are more directly observable for many kinds of assets than entry values.
[d] Exit values are easier to interpret because they are based on a single valuation methodology, thus circumventing the 'additivity' problem. Exit values also eliminate the need for a number of subjective estimates such as depreciation and amortization, which can cloud the interpretation of financial position and income measurement.
[e] Replacement cost can be useful for assessing long-run profitability, assuming continuation of existing business conditions. Relevance of separating current operating profit and holding gains/losses is widely criticized in the literature (Drake and Dopuch, 1965; Prakash and Sunder, 1979). Technological advances undermine the relevance of replacement cost income, because income is calculated on the replacement cost of existing assets. This also makes future profitability more difficult to predict.
[f] Once a replacement cost model has been established, current operating profit is likely to be less variable than profit determined under an exit value model.
[g] Asset backing per share as an indicator of the 'break up' value of the firm is only relevant on a selling/liquidating price basis.
[h] Historical cost income is closer to the underlying cash flows of a firm than replacement cost income. In some circumstances, it can be useful for assessing capacity to repay debt.
[i] Written down historical cost has some relevance for assessing the discharge of accountability, but not for assessments of current performance.
[j] Replacement cost is a particularly useful model for assessing the past decisions of managers. Exit prices are more relevant for assessing current and future economic alternatives.
[k] Relevant to the evaluation of some past decisions only.
[l] Provided revaluations are not so frequent as to hamper analysis of performance over time.
[m] Assets intended for sale are reported at exit prices under replacement cost accounting, making the information partially relevant for assessment of security adequacy.
[n] Replacement cost provides a superior measure of sustainable income, as it indicates the maximum amount that can be distributed while maintaining physical operating capacity.
[o] Replacement costs are more useful for going-concern assessments.

Standards Review Board issued Release 101 which included the following statement as an 'assumption' it would adopt when considering standards lodged with it for approval: 'In measuring assets, measurement principles are to be applied to the individual assets and liabilities of an entity; they are not directed towards valuing the business (or businesses) conducted by that entity' (para. 11). By describing the approach as being one to be adopted 'in principle', the ASRB statement acknowledged that this might have to be modified in specific circumstances or in specific industries.

Circumstances where it may be inappropriate to focus on individual assets include situations where there is no market for specific items, but a market for combinations of items. In the Australian context, there may not be a market for machinery, improvements and irrigation equipment on a remote leasehold property but there may be opportunities to estimate the value of the entire property plus improvements. In that case, some degree of aggregation may be appropriate. Greater difficulties may arise in certain industries—for example, in the snack foods industry it appears that participant firms often adapt their operations by acquiring or selling 'brands' and associated manufacturing equipment. Should that industry value the collective asset, 'brands and businesses'?

Difficulties also arise in industries which make major investments in 'businesses' whose securities are not publicly traded (e.g., superannuation funds and other institutional investors, including general insurers, or life insurance companies). If assets are to be valued at 'net exit values', it may become necessary to estimate those values on the basis of one or more valuation models since evidence in the form of sale prices of comparable businesses would not be available. How should those businesses be valued?

But the resolution of such questions is necessarily the province of standard setters. Indeed AASB 1038, *Life Insurance Business*, requires life companies to value 'businesses' in which entities have invested. However, by banning recognition of a so-called asset 'business in force', it has avoided valuing the 'life insurance business' per se.

In short, the CF should present statements of principle, which may be departed from in specific circumstances.

LIABILITIES: ATTRIBUTES WHICH COULD BE SELECTED

In a similar vein to assets, liabilities can be measured in a variety of ways. Other attributes of liabilities may include: replacement value, exit value and face value.

It is customary to refer also to the present (or discounted) value of future cash flows—though this is a calculation not an observable attribute per se (though plainly present values may provide good estimates of what sums may be required to settle a liability before it is due and payable).

Which attribute is deemed appropriate is conditional on one's definition of a liability. According to Kerr (1984), various definitions reflect a focus on:

1. accounting procedures (a credit balance which should be carried forward on the closing of the books);

2. legal aspects such as 'claims of creditors', 'obligations', 'relationship', 'rights of creditors';
3. economic benefits or 'probable future sacrifices of economic benefits'; and
4. cash flows (or 'negative present values').

Most CFs (including the AARF's) have adopted a definition that refers to 'economic benefits'.

The replacement cost of a liability is the amount which can be borrowed on existing terms and maturity date (Edwards and Bell, 1961, p. 205). The AARF Accounting Theory Monograph (1998) discussed the concept of 'relief value', which is measured as the higher of replacement value or its settlement value. Baxter (1994) recently described the replacement value of a loan as a 'confusing irrelevance', suggesting that a liability should be valued at its market purchase price (see also Bradbury, 2000, and Gray, 2003).

The net realizable value (also called 'fair value' by the FASB, 1999b) for financial liabilities, such as issued debt, is the selling price determined on a publicly traded debt market. This measurement basis is preferred by the FASB's *Preliminary Views on Major Issues Related to Reporting Financial Instruments and Certain Related Assets and Liabilities at Fair Value* (1999).

Consistent with his perspective that accounting should reflect commercial realities, Chambers adopted a narrower, more legalistic 'rights of creditors' definition of liabilities, and proposed the use of face values or contractual amount for all liabilities, arguing that this amount shows what cash has to be marshalled to settle claims. It is also simple to calculate, does not rely on too many assumptions and is consistent with most people's understanding of the concept of liability. Schuetze (2001) concurs. However, settlement of debt rarely occurs at or shortly after balance date, as many debts run to maturity. The use of face values ignores the time value of money. Some would argue that liabilities would be overstated in the financial statements when reported at face value (though such statements imply that the 'true' valuation is a present value).

There is little research evidence available about what users regard as more relevant: face values, market value or PVs. The AARF 1998 monograph states that 'in practice, market values of certain liabilities may be used to measure . . . present value' (p. 87). At first glance, that statement gets things back to front—present values are not an attribute of liabilities, but a desk calculation about liabilities. We have already noted that some liabilities have readily available market values, and others do not—so that PVs may be useful estimates of market values. More broadly, the statement reflects a confusion between 'concepts', 'attributes' and estimation procedures.

Australian accounting standards have drifted towards wider use of the U.S.A.'s PV approach for monetary assets and liabilities (while also adopting the U.S.A.'s inconsistency in the application of discounting—see Weill, 1990). However, current standards adopt a variety of discount rates which can materially affect the amounts at which liabilities are reported in financial statements. Table 2 summarizes the discount rates recommended under different standards. Walker *et al.* (2000) demonstrate their impact in practice.

TABLE 2

VALUATION OF LIABILITIES IN TERMS OF SOME AUSTRALIAN ACCOUNTING STANDARDS

Item	Rule	Method	Discount rate
Monetary items	n/a	Face amount	n/a
Interest bearing monetary items	AAG 10	PV (of face amount plus interest)	Historic effective rate
Finance leases	AASB 1008	PV	Historic implicit rate (i.e., effective rate)
Residual obligations after principal-only debt defeasance	AASB 1014	PV	Historic rate
Accrued benefits—defined benefit plans	AASB 1025 AAG 13	PV	'Current' rates (or, if that can not be reliably determined, current risk-free rate)
Employees' entitlements	AASB 1028 UIG 3	PV	Current 'risk free' rate (revised annually)
Insurers' outstanding claims	AASB 1023 AAG 13	PV	Current rates earned on investments (or if not applicable, current risk-free rate)
Obligations to restore mine sites, etc.	AASB 1022	No method specified	n/a
Deferred tax liabilities	AASB	Face amount	n/a

Arguably, face amounts are understandable, reliable, but often less than relevant when claims are not due for settlement for extended periods. Present value may be relevant, but not reliable if preparers can choose discount rates (such as would occur if PVs were to be calculated on the basis of assessments of a risk adjusted discount rate). If different rates were used for different liabilities, then arguably the resultant schedule of liabilities and estimates of aggregates would not be understandable.

On this basis, it is proposed that, in principle, the most relevant and reliable attribute of short term liabilities are face amounts.

For liabilities of longer duration, it is argued that, in principle, the relevant attribute would be that reflecting the amounts for which those liabilities could be extinguished at balance date (assuming the cooperation of the holder of those claims).

In some instances, such values may be readily observable in markets (e.g., where debentures or notes issued by an entity are publicly traded). In other instances, current settlement values may have to be estimated, via a present value calculation.

One suggestion is that liabilities be measured using 'The rate the market would use to value a financial instrument issued by the firm making the promises' (Weill,

1990). However, this approach leads to a problem. As noted by Bradbury (2000), if a firm's financial circumstances deteriorate, or a firm's credit rating is downgraded, the interest rate would rise, leading to a reduced valuation of an entity's liabilities (and arguably masking the firm's financial situation). Gray (2003) augments Bradbury's observation in a limited financial instruments sense.

It is proposed, in the interests of reliability and understandability, that the relevant discount rate to be used should be the market risk-free rates for borrowings of applicable duration. However, this is an arbitrary judgment about what may be appropriate policy. It represents what is considered to be a reasonable assumption in light of the current state of knowledge about what key stakeholders may consider to be relevant to their routine decisions. That assumption may warrant revision if research evidence suggests otherwise.

MEASUREMENT SCALE

Finally, a few brief observations about the measurement scale. If attributes being measured reflect contemporary exit or settlement values, it is appropriate to measure those attributes in money units of contemporary purchasing power.

It follows that estimates of changes in the values of assets or liabilities should be in a consistent scale: in other words, opening balances of assets and liabilities (presented as comparative figures) and shareholders' equity should also be adjusted to represent values in terms of the purchasing power of money at the end of a financial period.

Arguably such adjustments are relevant since they reflect 'real changes' in values. The Australian community is well used to references to 'real changes' in values, if for no other reason than because those terms are popularly used in discussions about changes in wages rates, or taxes, or government expenditure. Moreover, Australia's regime of capital gains tax for many years required this process of adjusting historic costs for changes in the CPI. Such a process generates data which would be readily understood by most persons experienced in commercial affairs. Many academics have proposed a constant measurement scale, and numerous accounting standards relating to inflation accounting have required a constant purchasing power adjustment (see Chambers, 1995b, for a detailed discussion).

RECOMMENDATIONS

1. SAC 3 should be deleted, since the CF does not need a statement of 'qualitative characteristics'. The qualitative characteristics listed in SAC 3 do not provide meaningful guidance to standard setters or practitioners. Rather, some of these characteristics ('relevance' and 'reliability') are best viewed as criteria for developing appropriate definitions (and recognition tests) for 'assets' and 'liabilities', and for determining the basis for the inclusion of items in cash flow statements. The criteria of 'comparability' and 'understandability' are unnecessary in a CF, and those qualities of financial statements are likely to be present if an agreed CF (including firm definitions of 'elements' and a standard basis for

asset measurement) was adopted and followed in practice. The criterion of 'verifiability' (used by the FASB) is also unnecessary if an appropriate specification of the criterion of 'reliability' were adopted as the basis for designing key concepts and specifying the attributes of assets and liabilities which are to be measured in financial statements.

2. The criterion of 'relevance' should be redefined so as to exclude references to 'accountability' and to emphasize the judgments which are *routinely* made by key groups of potential users of financial information. *Measures of an attribute are 'relevant' if the financial information provided is information which influences judgments routinely made by potential users of financial statements about their future relationships with an entity.*

   (Note that the focus here is on financial statements, not financial reporting. Information about some attributes may be relevant to judgments made non-routinely by some potential users, and it may be possible to disclose these attributes in notes accompanying financial statements.)
3. The selection of the concepts of 'asset', 'liability', and of the attributes of assets and liabilities to be measured in accounting, should have regard both to what information is *relevant* to key potential users of financial reports, and what relevant information is *common* to the judgments made by the classes of potential users identified as key stakeholders.
4. The criterion of 'reliability' should be re-defined to refer to measures of attributes of stocks of assets and liabilities, rather than its current inappropriate reference to the faithful representation of flows, in the form of 'transactions' and 'events'.

   Measures of an attribute are 'reliable' if those measures are repeatable by different observers who have a common understanding of the objectives of the measurement process, so that separate observers may obtain measures with only small variations and the criterion for identifying attributes for use in accounting should be *whether financial information reflecting a specific attribute can be measured reliably.*
5. The concept of 'understandability' should be redefined so as to refer to that quality of financial information which exists when users with a basic knowledge of commercial affairs are able to comprehend its meaning—rather than the current expectation that readers should have 'proficiency' through knowledge of accounting processes in order to be able to interpret accounting 'code'. Accordingly the criterion for identifying attributes for use in accounting would be *whether financial information reflecting a specific attribute can be 'interpreted' by readers with basic knowledge of commercial affairs.*
6. The only attributes which meet these criteria for statements of financial position are: (a) net exit values of assets, and (b) net settlement values of liabilities, or face values of liabilities.
7. The CF should include the following statement from ASRB 101: *In measuring assets, measurement principles are to be applied to the individual assets and liabilities of an entity; they are not directed towards valuing the business (or businesses) conducted by that entity.*

8. The CF should state that it is assumed that the most relevant, reliable and understandable attribute of non-interest bearing, short term liabilities (due within twelve months) are face values.
9. The CF should state that it is assumed that: (a) in principle, the most relevant, reliable and understandable attributes of liabilities due twelve months or more hence are the values at which those liabilities could be extinguished at balance date, and (b) if it is necessary to estimate settlement values using present value calculations, it is assumed that the appropriate discount rate is the market risk free rate applicable to loans of similar duration.
10. The measurement scale should be money of contemporary purchasing power. (Adoption of this assumption would require restatement of opening balances of shareholders' equity to ensure that income was calculated in 'real' terms.)

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STEWART JONES AND PETER W. WOLNIZER

Harmonization and the Conceptual Framework: An International Perspective

The release of CLERP 9 (Commonwealth of Australia, 2002) requires the Financial Reporting Council and the Australian Accounting Standards Board to adopt International Accounting Standards (IAS) *en bloc* as domestic reporting standards by 1 January 2005. This article considers the current and future role and direction of the conceptual framework (CF) under the CLERP proposals and a potential IAS reporting environment after January 2005. It is argued that Australia, which has been a major innovator on CF issues, may suffer a major setback if the International Accounting Standards Board's CF is adopted in January 2005. Furthermore, while the International Accounting Standards Board (IASB) has been aggressively pursuing a set of global accounting standards, it remains unclear whether the IASB will, or can, develop an internationally relevant and generally accepted CF which can guide the development of a globally compatible set of accounting standards.

Key words: Accounting; Concepts; Harmonization.

BACKGROUND

Australia is in the midst of cathartic change to its institutional arrangements and structures for accounting standard setting. These developments have been precipitated by sweeping reform initiatives of the Commonwealth Department of Treasury, as part of its Corporate Law Economic Reform Program (CLERP) (March 1997).[1] More recently, CLERP 9, *Corporate Disclosure—Strengthening the Financial Reporting Framework* (September, 2002) recommended further reforms to the auditing profession, as well as providing more specific details of Australia's accounting standards harmonization program. The most controversial of these recommendations is that IASB standards must be adopted *en bloc* by the newly constituted Australian Accounting Standards Board (AASB) (see CLERP 9,

[1] The details of CLERP have been published by the Australian Treasury as the 'Corporate Law Economic Reform Program': Draft Legislative Provisions (1998) containing A Bill for an Act to amend the Corporations Law, and for related purposes, and Corporate Law Economic Reform Program: Commentary on Draft Provisions (1998). The CLERP became legislation in November 1999 (taking effect as of 1 January 2000) as the Corporate Law Economic Reform Program Act (1999).

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p. 104; and CLERP 1, pp. 3–4). The Financial Reporting Council (FRC) (Agenda item 4; June 28, 2002), has since outlined its strategic thinking for the future of AASB standards: 'Subject to the Government's support at the appropriate time for any necessary amendments of the Corporations Act, reporting entities under the Act would be required to prepare their financial statements in accordance with IASB standards for accounting periods beginning on or after 1 January 2005.'

To demonstrate its commitment to assist the FRC achieve its harmonization objectives, the Parliamentary Secretary to the Treasurer also announced an additional $A2 million in funding to the FRC and AASB, which doubles the government's current contribution to standard setting. (CLERP 9, p. 102). CLERP 9 (p. 104) clarified CLERP 1 with respect to what the harmonization of accounting standards would actually entail:

> Australia would in virtually all cases accept IASB standards without modification (except to ensure that they are appropriate to the Australian legal and institutional environment). Under the ASIC Act, adoption would occur unless considered not to be in the best interests of the Australian private and public sectors. However, such instances are likely to be extremely rare. Any departures by Australia from IASB standards could rapidly erode the advantages of a common language and in particular the acceptance overseas of Australian companies' financial statements as IASB compliant.

Furthermore, to ensure consistent application of IASB standards, CLERP 9 (p. 105) recommends that Australia adopt, from January 2005, official interpretations of IASB standards issued by the IASB's International Financial Reporting Interpretations Committee (IFRIC). At noted by CLERP 9, the comparability of a common set of accounting standards could be eroded 'if standards are subject to differing interpretations and markedly different enforcement regimes' (p. 105). In practice, adoption of IASB standards will mean that 'single entity and combined financial statements required under the Corporations Act will need to be prepared in accordance with IASB standards for accounting periods beginning on or after 1 January 2005'. Furthermore, with the need to present one year comparatives, the changeover will effectively begin on 1 January 2004 (p. 103).[2]

It is not the purpose of this article to discuss the pros and cons of Australia adopting IASB standards as domestic reporting standards. That issue has already been extensively discussed in the literature (see, e.g., *Press Release of Australian Society of CPA's*, 2 June 1998, p. 1; Peirson, 1998, pp. 1–4; Zeff, 1998, p. 3; Collett

[2] The drive for standards harmonization has been rationalized consistently in the context of the Treasury Department's traditional emphasis on national and international economic policy objectives (CLERP 1, 1997, pp. 11–13; CLERP 9, p. 106). The rationale is further outlined in CLERP 9 (p. 102):

> The Government has long recognized the benefit to Australia of a common global accounting language. In a globalized economy with large and growing cross-border capital movements, high quality internationally accepted accounting standards will facilitate cross border comparisons by investors and enable Australian companies to access international capital markets at lower cost . . .
>
> Australian accounting standards are recognized by accounting standard setters world-wide as being of high quality. However, with Australia comprising less than two percent of the world capital market, participants in markets overseas have little incentive to understand them.

et al., 1998, pp. 9–15; Emenyonu and Adhikari, 1998, pp. 24–32; Brown and Clinch, 1998; Brown and Tarca, 2001).

This article addresses the specific issue of the role and future of the Australian CF under the CLERP proposals. Given that neither CLERP 1 nor CLERP 9 makes any specific reference to the CF, a number of important issues require clarification and discussion. For instance, will the Australian CF be replaced by the IASB CF from January 2005? If the IASB CF replaces the Australian CF, will it be of sufficient quality, scope and depth to provide adequate guidance for the standard setting process and serve the needs of users? If the IASB's CF is to be adopted, what will be the IASB's future program for the development of the CF, particularly on issues such as the reporting entity concept and accounting measurement? Furthermore, if the CF is to guide the international accounting standard setting process, can the IASB realistically develop a workable CF that will be acceptable on a global level? And what will be the impediments and obstacles to the development of such a framework? Finally, will the CF continue to serve the same standard setting objectives and priorities that it has traditionally performed in Australia?

This article attempts to address these questions in the context of two specific themes: (a) the role of the Australian CF in a post-IASB reporting environment; and (b) the likelihood of the IASB achieving a generally accepted accounting framework that can guide the development of a globally compatible set of accounting standards. Both of these issues are now discussed.

THE ROLE OF THE AUSTRALIAN CF IN A POST-IASB REPORTING ENVIRONMENT

Under the CLERP 1 and CLERP 9 proposals, there is neither mention of the Australian CF nor the IASB CF projects, nor whether the IASB CF will replace the Australian CF after January 2005. We can construct various scenarios of what is likely to occur.

Scenario 1—Australia Adopts the IASB Framework

Given the emphatic harmonization spirit of CLERP, and the IASB's strong commitment to its own CF, it seems likely that Australia will be adopting, if only by default, the IASB framework from January 2005. The prospect of Australia losing its own CF, not to mention its autonomy and authority in the standard setting process, deserves careful attention by academics and regulators. Among other reasons, Australia has long developed a reputation in international accounting circles for being at the forefront of a principles-based approach to standard setting as well as being a major innovator on CF issues. In the words of Sir David Tweedie: 'Now the reason in fact that we are in a position to harmonise international standards is basically because standard setters for many years now have been coming from a single conceptual base, the CF which you pioneered much in Australia'.[3]

[3] Speech by Sir David Tweedie, Chairman, International Accounting Standards Board, dinner hosted by the Financial Reporting Council, the Business Council of Australia, the Australian Institute of Company Directors, and the Australian Stock Exchange, Sydney, Thursday, 15 August 2002.

We have at least three concerns with adopting the IASB CF in place of Australia's own: (a) the Australian CF provides guidance on important issues not covered by the current IASB framework, (b) the Australian CF's future work program is more advanced and transparent than the IASB on a number of issues, and (c) initiative, autonomy and innovation in the development of national frameworks will decline if the IASB framework is adopted.

Comparison of the IASB and Australian Frameworks The IASB's *Framework for the Preparation and Presentation of Financial Statements* and the Australian Statements of Accounting Concepts (SACs) appear broadly consistent at a philosophical level. However, there are substantive differences relating to issues of content, coverage and strategic direction on important framework questions. For example, the Australian SACs 1–4 are generally more detailed, explanatory and prescriptive documents than their IASB counterparts, having been developed uniquely for local Australian financial reporting conditions and requirements. Furthermore, the Australian SACs have been more actively utilized to drive the development of particular accounting standards. It is also noted that Australian Statement of Accounting Policy No. 5, *The Nature and Purpose of Statements of Accounting Concepts*, is more explicit than its IASB counterpart in identifying the purpose of a CF in terms of meeting specific standard setting objectives. Two further issues warrant more detailed attention, as they represent significant departures between the Australian and IASB frameworks. They are: (a) the reporting entity concept; (b) the applicability of the framework to the private and public sectors.

The Reporting Entity Concept The Australian CF is innovative in its treatment of different types of entities which should be preparing general purpose financial reports (GPFRs) and which entities should be complying with Accounting Standards. The reporting entity concept, which is currently not covered by the IASB framework, has some practical value in deciding which entities should be required to prepare GPFRs. For instance, should a local council, a government department, a sporting organization, a church or a family business be required to prepare financial reports and comply with Accounting Standards? SAC 1, *Definition of the Reporting Entity*, states that only reporting entities should be required to prepare financial reports and comply with Accounting Standards. These are: 'entities (including economic entities) in respect of which it is reasonable to expect the existence of users dependent on GPFRs for information which will be useful to them for making and evaluating decisions about the allocation of scarce resources' (SAC 1, para. 40).

Those users would include shareholders, investors, creditors, suppliers, employees and other users who need financial reports as a basis for assessing an entity's financial position, profitability and performance. The definition implies that those entities where major external users are *not expected* to exist should not have to prepare GPFRs nor comply with Accounting Standards. For example, private companies, trusts, sole traders and family businesses would not qualify as reporting entities under SAC 1, because it would be reasonable to assume that there will be no external users. Because the definition of the reporting entity is linked to the

information needs of external users, the existence of a reporting entity will not depend on either:

- the sector (whether public or private) within which the entity operates; or
- the purpose for which the entity was created (whether business or not-for-profit); or
- the manner in which the entity is constituted (whether legal or otherwise).

SAC 1 also attempts to provide some general guidance in determining whether dependent external users are likely to exist. These guidelines include: the degree of separation of management from economic interests; economic or political importance/influence of the entity; and financial characteristics such as an entity's size (e.g., sales turnover) or its indebtedness.

It is clear that the introduction of SAC 1, while criticized on occasion for being couched in qualitative terms, has continued to have a significant impact on accounting practice in Australia. For example, SAC 1 has provided the justification for requiring numerous types of entities, such as partnerships, trusts, government departments, local government authorities, whole of government entities and other statutory authorities, to prepare GPFRs, when previously there was no such requirements under professional accounting standards. For instance, the Australian Accounting Research Foundation (AARF) now has professional accounting standards for local governments (AAS 27), government departments (AAS 29) and whole of government entities (AAS 31) when previously there were no professional reporting requirements for these entities. A number of questions remain as to whether the reporting entity concept will be adopted by the IASB, and whether the IASB will adopt a similar position to Australia on this concept before the IASB CF takes force after 1 January 2005. Furthermore, what would be the likely impact on the Australian reporting environment if SAC 1 were superseded by the IASB framework?

Applicability of CF to the Australian Public and Private Sectors For financial reporting purposes, Australian standard setters have not maintained a strong distinction between the private and public sectors. Indeed, Australia is one of the few countries in the world which has made its CF equally applicable to all entities, including public sector entities and not-for-profit entities in the private sector.[4] Standard setters have paid more than just lip service to this policy stance. Accrual accounting principles and Australian professional accounting standards (AASs) are applicable to all not-for-profit entities in the private and public sectors. Implicit in the Australian CF is the presumption that private and public sector entities have a number of economic and operating characteristics in common, including similarities in the economic environment, similarities in the user needs for information and similarities in the objectives of financial statements.

When the IASB CF is adopted, will it be equally applicable to the public sector and the private not-for-profit sector? Currently, the IASB framework provides no

[4] In the U.S., public sector accounting standards and concepts statements are regulated by a separate board, the Governmental Accounting Standards Board.

guidance for public sector and not-for-profit entities. This should be a matter of concern, considering that Australian public sector financial reporting is now largely on a 'private sector' full accrual basis. Furthermore, if these entities are brought under the umbrella of the IASB framework, will the Australian position be adopted where the public and private sectors are treated as one for financial reporting purposes? Or would, perhaps, the U.S. position be adopted where a separation between the public and private sector environments is maintained, with attendant differences in the financial reporting requirements and bases of measurement?

Australia's Future Work Program on the Framework The Australian CF is also more explicit in its intended or planned work program with respect to the future development of the CF—which includes future statements on the scope of financial reporting, operational and display issues, standard setting policy, standards enforcement, and the fundamentally important question of accounting measurement. Many of these issues are not explicitly covered in the IASB framework. For example, 'measurement' provides a major difference between the IASB and Australian approaches to the CF. While the IASB has always been committed to an historical cost basis of accounting, Australian standard setters have provided a longstanding commitment to a hybrid of cost and market value approaches (see Walker and Jones, 2003).

Australia is somewhat unique for having developed an impressive current-value accounting tradition spanning many decades.[5] Furthermore, support for various forms of current-value accounting has had strong endorsement from Australian standard setting authorities over a long period. The 1970s was a particularly active period in the development of a comprehensive system of current-value accounting in Australia. The drive for a current-value system was fuelled, among other reasons, by double digit inflation rates in Australia around the mid-1970s. Three different exposure drafts on current-cost accounting were released by the AARF between 1974 and 1978, which culminated in the 1983 issue of Statement of Accounting Practice (SAP 1), *Current Cost Accounting*. SAP 1, which recommends adoption of replacement cost disclosures in either primary or supplementary form, is still in existence (but not in operation). However, regulators have instituted a number of more recent current-value regulations and standards in Australia, which includes asset revaluations for non-current assets; the recoverable amount test for non-current assets; net market values for superfund assets; net market values for general insurance activities; present values for employee entitlement liabilities and monetary and non-monetary assets and liabilities; mark to market for financial instruments; and replacement costs for infrastructure and heritage assets (see Jones and Love, 1995; Walker and Jones, 2003).

At a conceptual level, the AASB has long been committed to developing a concepts statement on accounting measurement. For instance, AARF released on behalf of the AASB a public Invitation to Comment, *Proposed Program for the Development of Concepts on Measurement of the Elements of Financial Statements*

[5] See for example, Chambers (1966) and Gynther (1966).

(1994), on proposed changes to the historical-cost measurement basis of accounting. The Invitation to Comment signalled the AARF's intention to develop the next Statement of Accounting Concepts (SAC 5) which would ostensibly deal with the controversial issue of the measurement of accounting elements and was expected to assist the AASB complete the CF. The Invitation to Comment failed to meet its own self-imposed 1997 deadline for the development of a proposed SAC 5. However, the AARF signalled its commitment to develop SAC 5 with the long awaited release of Accounting Theory Monograph No. 10, *Measurement in Financial Reporting* (1998), which is still expected to lay the foundation of a future SAC 5.

At this stage, the IASB has announced no plans to extend its current CF to measurement issues, nor other CF issues such as the scope of financial reporting and standard setting policy which is part of the Australian framework. The current IASB framework provides no guidance on measurement issues. Furthermore, given the IASB's longstanding commitment to historical cost accounting, it is likely that Australian innovations on measurement could suffer a serious setback if the IASB framework is adopted.

The Impact on Local Autonomy in Standard Setting Standard setting authorities in Australia, the United States, the United Kingdom and elsewhere have offered explicit justifications for the development of their various CFs. For example, in justifying the need for a CF, the FASB (1976) acknowledged the erosion of the credibility of financial reporting, giving special mention to the following situations:

- Two or more methods of accounting are accepted for the same facts.
- Less conservative accounting methods are being used rather than the earlier, more conservative methods.
- Reserves are used to artificially smooth earning fluctuations.
- Financial statements fail to warn of impending liquidity crunches.
- Deferrals are followed by 'big bath' write-offs.
- Unadjusted optimism exists in estimates of recoverability.
- Off balance-sheet financing (that is, disclosure in the notes to the financial statements) is common.
- An unwarranted assertion of immateriality has been used to justify nondisclosure of unfavourable information or departures from standards.
- Form is relevant over substance.

In times of financial crisis, standard setting bodies have proven vulnerable to public criticism because they are regarded as the custodians of 'best' financial reporting practices (Hines, 1988). The AASB has always taken the view that a CF is particularly useful in the development of more consistent and logical standards, and in removing the necessity to re-debate conceptual issues when preparing new accounting standards. See APS 5 (AASB, 1995), *The Nature and Purpose of Statements of Accounting Concepts*, para. 7. The result is (supposedly) higher quality standards. Also, the possibility of standards 'overload' can be potentially reduced because a CF can enable resolution of particular accounting problems thereby

avoiding the necessity of issuing new accounting standards. A CF can also lead to better communication among accountants, auditors and users because all parties would be using a common set of definitions and criteria. Another potential benefit of a CF is that it can reduce the activities of lobbyists and special interests groups (who have self-serving motivations) in attempting to influence the standard setting process (Bazley and Hancock, 1993). As suggested by Solomons (1986), conflicts between economic interests could be avoided if accounting's theoretical foundations were well established.

The key issue arising from this discussion concerns the substantive qualitative differences which exist between the IASB and Australian CFs. In particular, will the IASB framework be of sufficient quality and scope to fulfill the various technical and strategic roles for which the current Australian framework was developed. Further, the IASB framework was not developed for the local Australian reporting environment. Hence, it is unlikely that the IASB CF will have the same beneficial impact as Australia's own framework on the standard setting environment. In one sense, the adoption of IASB standards *en bloc* will reduce the need for a local framework, as accounting standards will flow directly from the IASB, with greatly reduced input from local standard setting authorities. This prospect in itself is a major concern because it could have the affect of restricting local innovation and initiative, as well as undermining efforts to develop standards which can address unique local standard setting needs and concerns. Furthermore, as experiences have shown in the past decade, the accounting profession can become vulnerable to attack in times of financial crisis (Walker, 1993): The risk of this occurring seems that much greater if Australia loses 'authority and legitimacy' by a reduction in its autonomy in the standard setting process and the loss of its own CF.

Scenario 2—Retain the Australian CF

While Scenario 1 seems to be likely, given recent international standard setting trends, we propose an alternative scenario that may still work well in a post-IASB reporting environment. We propose that Australia retain its CF, and standard setters continue actively to develop that framework, particularly in vital areas such as accounting measurement. The Australian reporting environment is unique in the world for having developed an innovative prescriptive CF, for its considerable academic legacy on measurement, and for its longstanding support for measurement alternatives to historical cost by standard setters. Australia would be better served to retain its framework, and exploit its comparative advantage in these key areas, by providing input and actively assisting the IASB on the future development of the CF. This might be extended to include issues such as the reporting entity concept, the scope of financial reporting and accounting measurement. Further, after January 2005, the Australian framework should be retained and utilized to guide financial reporting in the public sector and the not-for-profit sector, an area where Australia has made significant progress. The Australian framework may also be of some assistance to standard setters for interpreting and selecting among (the many) IASB accounting alternatives which are most appropriate for Australian conditions.

IS A GENERALLY ACCEPTED INTERNATIONAL CF ACHIEVABLE?

Much of the recent literature has focused on the IASB's mission to create a globally compatible set of accounting standards. In some respects the IASB is closer to achieving this end than it was two years ago, particularly following recent decisions by the European Union and Australia to adopt IASB standards by January 2005. Furthermore, the IASB–FASB convergence project offers some possibility of future agreement on an internationally compatible set of accounting standards that would be acceptable to the FASB and the SEC.[6] While recent academic and practitioner discussion has tended to focus on global accounting standards, there has been comparatively little or no discussion on the capacity of the IASB to develop a globally harmonized and compatible CF to guide the standard setting process on the likelihood of its doing so.

The major benefit of any CF is that it will facilitate the resolution of disputes between interested parties and aid the development of logical and consistent accounting standards.[7] Furthermore, according to Gerboth (1987) the absence of a 'coherent and rigorous' body of accounting theory to guide the development of professional accounting practices has been a significant factor that has led to a reduction in the professional status of accounting. Political pressures and motivations for a CF have usually paralleled, and even overshadowed, mere technical requirements and considerations (Horngren, 1981; Solomons, 1986).

Arguably, a CF will become even more crucial if the IASB fulfils its mission of becoming the sole global accounting standard setter, thus affording it a virtual monopoly over the international standard setting process. If the IASB does become the key global standard setter, its standards will almost certainly become subject to numerous political pressures and influences from a wide variety of national standard setting interests, including a number of corporate, regulatory and political interests around the world. In such an environment, will political processes and *ad hoc* approaches hold sway over the IASB, or will standards be driven from an internationally agreed upon CF, where the scope, objectives and qualitative and measurement characteristics of accounting will be clearly defined and agreed upon? In the process of developing a generally accepted CF, the IASB will have to resolve and take an explicit position on a number of fundamental conceptual issues. Some basic issues spring to mind:

1. Framework basis (prescriptive, descriptive or mixture of both?)
2. Fundamental orientation of accounting (e.g., statement of financial position vs operating statement view?)
3. Definition and recognition of assets, liabilities, equity, revenues and expenses

[6] See Testimony of Robert K. Herdman, 'Concerning the Roles of the SEC and the FASB in Establishing GAAP', before the House Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises, Committee on Financial Services, 14 May 2002.

[7] This section makes extensive use of chapters 4 and 5 of Belkaoui and Jones (2002).

4. Concepts of capital maintenance (financial or physical?)
5. Which measurement method is to be adopted (exit prices, entry prices, general price level, present values, value to the business, mark to market, other?)
6. Applicability of the CF to different sectors (private or public sectors—or both?)
7. Scope of financial reporting (definition of financial reporting; distinctions between general and special purpose financial reporting; what is to be included in financial reporting; timing and frequency of reporting?)
8. Consistency of the CF with Accounting Standards (will standards be made consistent with the CF?).

To be effective, a CF must gain general acceptance, represent collective behaviour, and protect the public interest by facilitating the development of high quality standards. Can the IASB realistically achieve that objective, given, among other things, significant national differences that currently exist in CF projects around the world (Goeltz, 1991, Flower, 2002)? Numerous authors have expressed pessimism about the prospect of achieving a generally accepted accounting theory in a political environment, and this might be extended to the related idea of a generally accepted CF. For instance, Watts and Zimmerman (1979, p. 274) argue that, 'because individual interests differ, a variety of accounting prescriptions, hence a variety of accounting theories is demanded on any one issue. We argue that it is this diversity of interests which prevents general agreement on accounting theory.'

In addition to social-choice problems and political realities, the acceptance or workability of a CF may also be hampered by the level of abstraction in the definition and recognition criteria for elements of financial statements. Dopuch and Sunder (1980) use the FASB framework as a case in point:

> The FASB's definition of liabilities is so general that at this stage we cannot predict the Board's position on deferred taxes. However, those who favor the recognition of deferred taxes can adopt a somewhat broad interpretation of the FASB's definition of liabilities to justify the inclusion of deferred taxes as an element of financial statements, particularly at the individual asset level. In contrast, those who do could take the FASB's statements literally and just as easily argue against the inclusion of deferred taxes. (pp. 6–7)

A reminder of the difficulty in achieving consensus on CF issues is illustrated by Australia's experience with SAC 4, *Definition and Recognition of Elements of Financial Statements*. The corporate backlash to SAC 4 took the AASB completely by surprise at the time, as earlier exposure drafts on the definition and recognition of financial statement elements did not attract significant commercial opposition or even comment. The groundswell of discontent regarding SAC 4 only became evident when the Statement was officially released, albeit with mandatory status by the AARF in August 1992. There were 108 public submissions relating to SAC 4 during 1993 reflecting a variety of concerns from leading accounting firms, companies, local and federal government agencies and departments, and interest groups and representative bodies such as the Australian Institute of Directors, the Group of 100, the Government Accountants Group Committee and the Australian Merchant Bankers Association (see Belkaoui and Jones, 2002, for a summary). Common

concerns included: the fundamental orientation of accounting (i.e., statement of financial position vs operating statement basis); the non-operational nature of definition and recognition criteria (definition and recognition criteria were considered too vague, uncertain and difficult to apply in practice); the fact that SAC 4 was fundamentally inconsistent with the *body corpus* of existing accounting standards; and the failure of SAC 4 to address measurement issues. In the words of Caltex Oil Australia's submission: '[SAC 4] is a laudable aim but I contend it does not address commercial reality, or focus on that very important issue of the credibility of the accounting profession in Australia' (quoted in Belkaoui and Jones, 2002, p. 159).

Australia's experience in achieving a general consensus, even within its own borders, should be a reminder to the IASB of how difficult it will be to achieve a generally accepted CF that will be sufficiently definitive, relevant and innovative to move financial reporting forward at an international level. However, if the IASB cannot achieve such a framework, the CF will be relegated to a position of obscurity and irrelevance in the standard setting process. If this is the likely outcome, it will be more desirable for local standard setting authorities to continue to develop their own CFs.

RECOMMENDATIONS AND IMPLICATIONS

1. By world standards, Australia has a comprehensive, high quality and innovative CF. It should therefore retain its own CF after January 2005 and not adopt the IASB CF.
2. Australia should strive to maintain autonomy and innovation in the future development of the CF (as well as accounting standards), and continue to use local standard setting talent and resources to develop its CF.
3. In particular, the AASB should utilize current research findings, including its own in-house research, to develop a SAC 5 on accounting measurement.
4. After January 2005, Australia's CF should continue to be used to guide financial reporting in the Australian public sector and the not-for-profit sector, as well as identifying those Australian reporting entities which should be required to prepare GPFRs and comply with Accounting Standards.
5. After January 2005, the AASB should use the Australian CF to assist in interpreting and selecting from among existing IASB accounting standards, which can offer numerous reporting alternatives, those accounting treatments which are most appropriate for Australian conditions.
6. Australia should actively assist the IASB on the future development of the IASB framework, which can take advantage of current Australian thinking and research on the reporting entity concept, the scope of financial reporting and accounting measurement.
7. If the IASB is successful in its mission of becoming the main 'global' accounting standard setter, it needs to develop an internationally acceptable CF to avoid standard setting falling pray to political processes and ad hocery.

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Implications for the Conceptual Framework Arising From Accounting for Financial Instruments

This article describes some of the issues faced by standard setters in developing guidance on accounting for financial instruments and the implications these issues have for the conceptual framework (CF). The objective is to outline issues, not necessarily to resolve them, and to consider the implications they have for further developing the conceptual framework.

Given the current trend of harmonization and convergence of accounting practice towards international standards, it seems reasonable to assume that any policy implications will be most relevant to the CF inherited by the International Accounting Standards Board (IASB).[1] Unless otherwise stated, references will be made to International Accounting Standards (IAS).

Key words: Accounting; Concepts; Financial instruments.

DEVELOPMENT OF IAS FOR FINANCIAL INSTRUMENTS

Financial Instruments

In 1989 the IASC and the Canadian Institute of Chartered Accountants (CICA) began a joint project to develop a comprehensive standard on the recognition, measurement and disclosure of financial instruments. The IASC issued an exposure draft (E40, *Financial Instruments*) for comment in September 1991. The proposals were re-drafted and re-exposed as E48, *Financial Instruments*, in January 1994. The CICA issued similar exposure drafts at the same time.

In view of the critical responses to E48 the IASC and the CICA decided to divide the project into two phases. The first phase was completed in June 1995 when IAS 32, *Financial Instruments: Disclosure and Presentation*, was issued. In March 1997, the second phase resulted in a discussion paper (DP), *Accounting for Financial*

[1] Most of the G4+1 representatives (Australia, Canada, IASC, New Zealand, U.K. and U.S.) have similar conceptual frameworks.

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Assets and Financial Liabilities. The discussion paper, which addresses the issues of recognition, transfers and derecognition, measurement, and hedge accounting, notes (para. 1.5): 'It will be readily apparent that the proposed accounting differs substantially from traditional historical cost practices ... However, it is emphasized that the principles proposed in this paper are reasoned within the IASC Framework for the Preparation and Presentation of Financial Statements.'

In the light of the comments received on the DP (1977), the IASC decided to proceed in two phases: (a) an interim standard (resulting in IAS 39 in December 1998) and (b) a comprehensive longer term project in partnership with national standard setters. The second phase resulted in the establishment of the Financial Instruments Joint Working Group of standard setters (JWG) in late 1997. The objective of the JWG was to examine whether a standard that would implement the fair value based principles set out in DP (1997) was feasible. The JWG comprised representatives from accounting standard setters or professional bodies in Australia, Canada, France, Germany, Japan, New Zealand, the Nordic Federation, the United Kingdom, the United States and the IASC. Its proposals, *Accounting for Financial Instruments and Similar Items* (JWG, 2000), were in the form of an exposure draft, application supplement and basis for conclusions.

The IASC, however, could not wait for the completion of the JWG's proposals. It needed a recognition and measurement standard for financial instruments in order to complete a core set of international standards that could be endorsed by the International Organization of Securities Commissions for cross-border capital raising and listings. In June 1998 the IASC issued E62, *Financial Instruments: Recognition and Measurement.* This was finalized as IAS 39 in December 1998. IAS 39 was issued as an interim standard and is a compromise on the comprehensive fair value approach recommended by DP (1997) and JWG (2000). Under IAS 39, some financial assets and financial liabilities are measured at cost, while others are measured at fair value.

The IASB has included aspects of accounting for financial instruments as part of its 'active research' agenda. In particular it is concerned that the mixed-attribute measurement model leads to a number of difficulties and complexities. In the short term, as part of its 'improvements project', the IASB has issued *Proposed Amendments to IAS 32 Financial Instruments: Disclosure and Presentation* and IAS 39, *Financial Instruments: Recognition and Measurement* (EDIAS 32 and EDIAS 39). The improvements do not relate to fundamental changes to the concepts in these standards, but are suggestions and recommendations received from preparers and auditors on the implementation of the standards.

Framework

The IASC *Framework for the Preparation and Presentation of Financial Statements* (*Framework*) was issued as an exposure draft in May 1988 and a final document in July 1989. Except for SIC 6, it has remained unchanged since that time.[2]

[2] SIC 6, issued in response to the 'Y2K problem', deals with when to create a liability and the capitalization of costs relating to modifying existing software.

The development of international accounting standards on financial instruments began in 1989, the same year the *Framework* was issued, and is still incomplete. The DP (1997) and the JWG (2000) were based on *Framework* principles. However, opposition to these proposals has resulted in IAS 39, an interim mixed model solution. The delay in producing a financial instruments standard consistent with the *Framework* is a result of the complexity of financial instruments, the incompleteness of the *Framework*, and the lack of acceptance of a *Framework* based solution by financial statement preparers. The issues arising from the financial instruments debate have implications for most of the seven statements that comprise the *Framework*.[3] The purpose of this article is to discuss these implications.

RECOGNITION

The recognition of 'financial instruments' under IAS 39 usurps the CF recognition criteria. Under the *Framework*, recognition of an asset (or a liability) requires *probable* receipt (or sacrifice) of a future benefit and *reliability* of measurement, whereas EDIAS 39.27 simply requires: 'An entity shall recognize a financial asset or financial liability on its balance sheet when, and only when, the entity becomes a party to the contractual provisions of the instrument.'

Thus for financial instruments the probability of a future benefit (or sacrifice) is not a hurdle for recognition, but part of the measurement of fair value.[4] The focus on the contractual conditions indicates a movement away from the traditional exchange basis towards a contract basis of accounting (see Hughes, 1978, Bradbury and Prangnell, 2002). Consider, for example, the case of a convertible note that gives the holder the ability to convert into equity at a future date. An exchange view would classify the convertible instrument as either all debt or all equity, depending on the probability of conversion. Under a contract basis the components of a financial instrument that are themselves financial instruments may be recognized and measured separately. Thus a convertible instrument could lead to the recognition of a debt component and an option (to convert to equity) component.

MEASUREMENT

There is strong standard setting support for the proposition that fair value is the most appropriate basis of measurement for derivatives.[5] The JWG (2000) extended the use of fair value beyond derivatives by concluding that it is the most appropriate

[3] The *Framework* comprises a series of statements that outline: (a) the objectives of financial reporting, (b) the underlying assumptions, (c) the qualitative characteristics of financial statements, (d) the definitions of financial statement elements (assets, liabilities, equity, income and expenses), (e) the recognition criteria for financial statement elements, (f) the alternative measurement bases that may be used in recording transactions and events, and (g) the concepts of capital and income.

[4] Measurement reliability for most financial instruments is simply assumed.

[5] See IASC (1997), FASB (1999) and ASB (1996). A summary of the arguments for fair value is provided by Willis (1998).

basis for all financial assets and liabilities. Fair value is a market-based notion unaffected by the specific entity that holds the asset or the intended disposition of the asset (see FASB, 1999). Under the central role of fair value measurement for financial instruments, three issues are raised that have implications for the CF: (a) the attribute to be valued, (b) the meaning of fair value, and (c) the accounting for transaction costs.

The Attribute to be Valued

EDIAS 39.66 requires initial recognition at historical cost, which is 'the fair value of consideration given'. This is consistent with the definition of historical cost in the framework. For many financial assets EDIAS 39.69 also requires subsequent measurement at fair value. However, there is a subtle difference between the fair value at initial measurement and the fair value for subsequent measurement because they are valuing two distinct attributes. The objective for subsequent measurement is based on the fair value of the *financial instrument.* On the other hand initial measurement is concerned with the fair value of the *consideration given.* An acquirer might pay more than the estimated amount of a willing buyer, willing seller because it has a special use for the asset (i.e., the fair value of consideration given might contain an element of value-in-use).[6] While this difference is unlikely to be a material issue for financial instruments, the principle involved might be significant for the acquisition of non-financial assets.

The Meaning of Fair Value

The JWG (2000) concludes that fair value is an exit price. EDIAS 39 is not explicit as to the nature of fair value.[7] However, not everyone shares the view that fair value ought to be an exit price. Some prefer other measurement bases such as deprival value (e.g., Horton and Macve 2000) or value-in-use (e.g., Barth and Landsman, 1995). This is not the forum in which to debate that issue. The matter is raised to illustrate that the *Framework* contains no discussion of 'fair value', 'deprival value' or 'value-in-use'. Furthermore, paragraph 101 of the *Framework* states that the 'measurement basis most commonly adopted by enterprises in preparing their financial statements is historical cost'. This may not be correct given the expansive scope of IAS 39, which encompasses all financial instruments, many of which will be reported at fair value (e.g., available-for-sale and held-for-trading instruments).

The Accounting for Transaction Costs

Another issue that needs be addressed under the measurement section of the *Framework* is accounting for transaction costs. Exposure draft E62.44 required transaction costs to be included in the initial measurement of held-to-maturity

[6] See Miller and Loftus (2000) for a full description of the relation between fair value and value-in-use.

[7] EDIAS 39.69 states that there is to be no deduction for selling transaction costs. This implies that fair value is an exit value because selling transaction costs are irrelevant for entry values.

investments, but excluded from the measurement (both initial and subsequent) of financial assets and financial liabilities that are required to be measured at fair value. In 1998 E62 was released as IAS 39, in which the accounting for transaction costs had changed. IAS 39.66 requires transaction costs to be included in the initial measurement of all financial assets and liabilities. However, transaction costs must not be deducted from fair value measured subsequent to initial recognition.

Thus, the treatment of transaction costs has altered over the development of IAS 39. Furthermore, the treatment of transaction costs within the 'improved' IAS 39 is inconsistent. EDIAS 39.99 requires the use of bid-ask prices for fair value estimates in active markets. However, as the bid-ask spread is a transaction cost (see Callahan *et al.*, 1997), the use of bid or ask prices is not consistent with the requirement for subsequent measurement to be at 'fair value, without any deduction for transaction costs' (EDIAS 39.69).

Inconsistencies in accounting for transaction costs also occur across other IAS standards. IAS 40, *Investment Property*, states that fair value is 'without any deduction for transaction costs that the enterprise may incur on sale or other disposal' (IAS 40.30). Conversely, IAS 2, *Inventories*, requires inventory to be measured at the lower of cost and net realizable value, where 'net realizable value' is 'the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale' (IAS 2.4).

RELEVANCE AND RELIABILITY

The classic qualitative characteristic trade-off between relevance and reliability (see Walker and Jones, 2003) has been a major feature of the financial instrument debate. The *Framework*, paragraph 92 states that:

> Income is recognized in the income statement when an increase in future economic benefits related to an increase in an asset or a decrease of a liability has arisen that can be measured reliably. This means, in effect, that recognition of income occurs simultaneously with the recognition of increases in assets or decreases in liabilities.

This is a clear statement that (a) reliability is an asset (or liability) measurement issue not an income statement issue, and (b) that fair value gains and losses should be recognized as income.

Many of the critics of the JWG proposals (JWG, 2000) claimed that, for many financial instruments, fair value could not be measured with reliability. The respondents to the JWG's proposals were also concerned with the impact that fair value has on income volatility (see Bradbury, 2002, Hague, 2002). Fargher (2001) reports that members of the Australian Markets Association have a greater concern about income volatility than they have about measuring fair value. Some constituents' arguments indicated confusion between the effect of volatility and the qualitative characteristic of reliability (see Bradbury, 1999).

The issue also highlights the tension between the balance sheet and the income statement. The CF's definitions are balance sheet-based. Equity (and therefore income) is a residual after measuring assets and liabilities. However, some believe

the crucial issue in accounting for financial instruments is not fair value but performance measurement (e.g., Macve, 1999; Mumford, 2000). EDIAS 39 reaches a practical compromise, and contrary to the *Framework* (see para. 92, as quoted above) it allows some fair value gains and losses to go to equity (e.g., available-for-sale instruments, cash flow hedges, and hedges of the net investment in a foreign entity).[8] This suggests that the IASB's 'active project' on reporting financial performance is a prerequisite to solving issues relating to the change in fair value.

DERECOGNITION (TRANSFERS OF FINANCIAL ASSETS)

The transfer of financial assets (e.g., securitizations of mortgages and credit card receivables) is a complex area of accounting because some transfers do not result in a 'clean' sale. This arises because the transferor has a continuing interest in or involvement with the transferred assets (e.g., the transferor provides a guarantee or has the rights to service the assets or has a call option to re-purchase the assets or has provided the transferee with a put option to return the assets back to the transferor). The accounting issue is whether the transferor has relinquished control and must derecognize the assets (or a portion of the assets) or has entered into a financing transaction (collateralized over the assets) that does not affect recognition of the asset.

Establishing international harmonization in this area will be a major task for the IASB because the solutions arrived at by the U.K. and the U.S. are very different. For example, FRS 5, *Reporting the Substance of Transactions*, issued by the U.K. ASB has adopted a 'risk and rewards' approach. Under this approach an entity only derecognizes a financial asset if it no longer bears the risk and rewards inherent in the financial asset. Consider, for example, an entity that transfers a portfolio of mortgages of $100, where the expected loss of the portfolio is $10. The transferor also provides a guarantee of $20 (i.e., there is recourse to the transferor for the first $20 of losses). If a risk and rewards approach is applied, it would be argued that the transferor has not, in substance, relinquished control because it is still exposed to all the credit risk. If certain conditions are met, FRS 5 might allow linked presentation (i.e., the borrowing to be shown as a deduction from the asset).

The FASB's SFAS 140, *Accounting for Transfers and Servicing of Financial Assets and Extinguishment of Liabilities*, applies what might be termed as a condition-based approach. Under this approach, derecognition of financial assets is not based on a judgment as to whether the transferee has assumed the risk and rewards but whether a series of conditions exist that indicates control has been relinquished. For example, the entity is required to derecognize a financial asset if the transferee has the right to pledge and exchange the asset, the asset is beyond the transferor and its creditors in bankruptcy or receivership, or the transferor is not entitled or obligated to repurchase or redeem the asset. Thus, in the prior example if the

[8] The JWG (2000) and Beaver and Wolfson (1984) consider that all foreign currency adjustments related to net investment should be recognized in income.

transferee has the ability to pledge or sell the mortgages, the guarantee would not prevent the transfer from being derecognized (sold) because control has passed.

The JWG (2000) proposed a components approach, which would recognize the components retained or acquired and derecognize those that have been transferred. The components approach would not classify the whole (or a portion of the whole) transaction as a sale or borrowing. Rather, the transferor would seek to derecognize those components that have been unbundled and sold and continue to recognize the components in which it has a continuing interest. Hence in the above example, the transferor would derecognize (as a sale) the entire portfolio of mortgages ($100) and recognize the $20 guarantee at fair value ($10), thereby recognizing a gain of $10.

The compromise arrived at in EDIAS 39 is also a conditions-based approach that limits derecognition where there is a continuing involvement. In the above example, the entity would derecognize $80 of receivables (i.e., the amount of receivables not subject to the guarantee) and recognize a debt (for failed sale) of $20. The 'failed sale' obligations have been called 'fictitious borrowings' because they do not meet CF definitions (see Dissenting Views, EDIAS 39, Appendix D).

The fact that four different approaches have arisen in accounting for the derecognition of financial instruments suggests that the CF was not helpful in producing a uniform solution. The basic issue is the interpretation of 'control' or, more precisely, 'loss of control'. Derecognition further highlights the tension between concepts such as 'risk and rewards' and a 'components approach'.

ELEMENT DEFINITIONS

The inadequacy of the CF to deal with the complexity of innovations in the hybrid security market raises difficult conceptual issues and has resulted in considerable diversity in practice with regard to balance sheet classification. For example, trust preferred securities are generally reported in the 'mezzanine' layer between debt and equity, although some are reported in debt, some in equity and some are unclassified (Frischmann *et al.*, 1999). The diversity in practice is extended to the correspondence between balance sheet classifications and income statement.

EDIAS 32 represents a substantial modification to the definition of equity contained in the *Framework*. Under CF definitions equity is *indirectly* defined, as a residual of defining asset and liability elements. However, EDIAS 32.22D adopts a *direct* approach by considering whether the counter-party holds a residual interest in the entity. Thus equity is no longer a residual. Furthermore, the exposure draft attempts to define equity from the holder's viewpoint, not the viewpoint of the entity that is issuing the equity instrument. This results in situations where the entity has a financial obligation that is reported as a liability even though the entity is 100 per cent committed to settling the obligation by delivering its own equity instruments!

Another fundamental concept in accounting for compound instruments is whether to adopt a single instrument (either all equity or all debt) approach or a component approach. Ma and Lambert (1998) advocate the reporting of a compound instrument

with a dual nature as a single instrument. On the other hand, EDIAS 32.19 requires classification of an instrument to be on the basis of an assessment of the substance and without regard to probabilities of the manner of settlement. Again, there is a conceptual appeal to the substance of the transaction.[9]

RISK

Perhaps one of the underlying weaknesses of the CF in relation to financial instruments is that it almost ignores risk—one of the main attributes of financial instruments. The CF element definitions are preoccupied with the measurement of assets and liabilities with a view to the determination of income to shareholders. Assets are defined as resources from which future economic benefits are expected to flow. The language of the CF focuses, almost exclusively, on *expected* values rather the *variation* about the expected value. Knowledge of the possible variation in measurement and the variation in outcome is important in understanding financial instruments and financial statements. Consider, again, the derecognition example above. The entity, pre-derecognition, has a $100 financial asset with an expected loss of $10. After securitization it might have a $20 financial asset with a likely default of $10. Thus to understand fully asset transfers and a derecognition transaction, the financial statement descriptions and risk disclosures are as essential as the recognition and measurement rules.

CONCLUDING REMARKS

The objective of this article is to document interactions between accounting for financial instruments and the CF. Financial instruments cover a wide range of assets and liabilities, from everyday monetary items (such as receivables, payables and debt) to complex derivatives. Financial instruments therefore represent a wide-ranging test case for the application of the CF to an accounting issue. An additional benefit is that, in many cases, the valuation and measurement issues of financial instruments are much less significant than those of non-financial assets and liabilities.

One set of users of the CF is standard setters. Current accounting standards (albeit interim standards awaiting further development) represent practical and political compromises of CF principles. However, recent documents on financial instruments (such as the DP, 1997, and the JWG, 2000) have been based on the CF. This article has highlighted areas where current practice conflicts with those proposals based on the CF.

Another set of users of the CF is the preparers of financial statements. Understanding the CF is essential for preparers if they wish to influence standard setters on an accounting issue. Unfortunately, some responses to financial instrument pronouncements indicate that the underlying concepts (such as reliability) of the CF are not well understood. More importantly, constituents invoke strongly held

[9] However, in this particular case it is difficult to imagine that the probability of settlement is not part of the substance of the transaction. It is certainly not part of the contractual form of the arrangement.

beliefs based on concepts that that are not contained in the CF. The most significant of these beliefs relates to the role of 'management intention' (especially related to hedging), the consistency with internal management practices, the role of earnings in determining dividends, taxation and pricing (see Hague, 2002, and Bradbury, 2002).

This article has highlighted implications that financial instruments have for significantly refining *existing* concepts, such as element definitions, recognition, measurement and qualitative characteristics, of the CF. The financial instrument debate also provides *new* concepts that need to be incorporated in the CF. Examples include derecognition, transaction costs, and the role of management intent. There is at least one aspect where the *Framework* is a promise unfulfilled. Paragraph 4 of the *Framework* states that it 'will be revised from time to time on the basis of the Board's experience of working with it'. This revision is long overdue.

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A Statement of Accounting Concepts for Level 1 of the Conceptual Framework?

The type of reporting found in corporate governance includes financial reporting, but over time various arguments have developed regarding a tension found between conventional and financial type reporting, especially as to the role of financial statements. Further tensions follow from the introduction of economic and social issues within both conventional accounting and financial reports.

This article argues that distinct, though related, frameworks at particular levels are required. The mingling of conventional accounting with financial and economic ideas and issues is evident in the conceptual framework (CF) project where there is reference to economic benefits and costs in making economic decisions for the allocation of resources. This results in a misconception of the function of these distinct types of information. An unravelling of particular issues will require a Statement of Accounting Concepts (SAC) for Level 1 of the CF.

Key words: Accounting, species; Concepts.

Work which began in the U.S.A. in the late 1960s was to culminate in the Financial Accounting Standards Board's 1976 Discussion Memorandum on a conceptual framework (CF) for financial accounting and reporting. Complementary work followed in Australia. A major catalyst for the CF project there was government intervention resulting from its impatience with the profession. Henderson and Peirson (1988, p. 163) state: 'In January 1984, after an extended period of criticism of the accounting profession for its apparent failure to produce and enforce accounting standards . . . the Ministerial Council for Companies and Securities established the Accounting Standards Review Board (ASRB). The ASRB . . . lists its powers as follows: (a) specify a conceptual framework . . .'

The ASRB was established following recommendations to the Ministerial Council by the then National Companies and Securities Commission (NCSC). The ASRB consisted of nine members—four from the profession, four from other constituencies and a chairman nominated by the Ministerial Council. There are parallels here with the U.S. institutional set-up of the Securities and Exchange Commission (SEC) and the FASB.

In February 1985, the ASRB issued Release 100 which set out criteria for the evaluation of proposed accounting standards and listed some tentative assumptions

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which proposed standards would have to satisfy. About the same time Sutcliffe (1985) included the diagram illustrated in the Appendix in which the 'building blocks' of the CF are shown by the different levels which make up the CF pyramid. Release 100, reissued by the ASRB in August 1990, incorporated a revised diagram and deleted the assumptions. The assumptions were effectively replaced by a number of SACs, the first of which were released at the same time as the reissued Release 100, including SACs 1–3. According to Release 100, SACs 'do not have the force of an approved Accounting Standard' but instead 'would be appropriate for preparers and auditors in endeavouring to satisfy their legal obligations'. Also, 'members of the profession have a professional obligation to apply Concepts Statements and Accounting Standards'.

The function of the ASRB was to approve standards submitted to it primarily by AARF, so giving those standards legislative backing. Consequently two sets of standards emerged, AARF's professional standards and the ASRB approved standards. The accounting profession called for a rationalization of the standard setting process, which occurred in 1988.

With the enactment of the Corporations Law in 1991 (Australian Securities Commission Act), the NCSC was replaced by the Australian Securities Commission (ASC; ASIC since 1998) and the ASRB was renamed the Australian Accounting Standards Board (AASB). While the players have new names, more resources and more elevated legal status, the functions remained effectively the same and the development of a CF is firmly entrenched as one of the powers and priorities of the AASB. Various works of the 1990s were built around that CF and some were certainly ground-breaking in the advance of non-cost methods for the measurement of particular assets and liabilities.

As illustrated in the Appendix, the CF is based on a hierarchy of levels or building blocks. The first (top) level is '1. Definition of Financial Reporting: General Purpose Financial Reports'. Given its importance for the whole structure, it seems intriguing that this has not been the subject of an SAC in its own right.

Perhaps the issuance of an SAC here would open the Pandora's box of accounting because of the demand for non-accounting information. That is, a problem arises if (as appears to be the case) the CF is intended to provide a basis for a measure of managerial performance. Increasingly, managerial performance is being measured against non-financial criteria. For instance, Henderson and Peirson (2000, p. 32) write of the difficulties of incorporating performance indicators in 'financial reporting', especially efficiency indicators which are non-financial (employee turnover) or partly financial ($ sales per employee). Another difficulty is how to incorporate future-oriented financial data which are commonly used as a means of gauging where managers are heading.

The trend is not new. More than twenty years ago, Burton (1981, p. 54) stated: 'One of the most significant changes in financial reporting is the steady erosion of the relative importance of financial statements. At one time, financial statements were the whole of financial reporting. Over the past decade, however, more financial reporting innovation has taken place outside the financial statements.'

This article argues that the basic level of the CF—Scope (Level 6)—needs an SAC to place the CF in context, explain its purpose and provide guidance to other conceptual levels. The argument should not be seen as a one-way type argument. Instead, interaction among the various levels of abstraction within the CF is required.

A research hypothesis/proposition guiding this article is that conventional accounting reports are unable to act as an instrument of control in corporate governance or to assist in decision making except by chance. For instance, Clarke *et al.* (1997, p. 122) have argued, 'More to the point, along with the privilege to make bad decisions, it is everybody's right to expect accounting to "tell it how it is", rather than mask the financial facts with the "jiggery-pokery" of the kind which conventional accounting passes off as sophisticated (though mysterious) financial representation ... Conventional accounting ... by [its] ... very nature, provided a vehicle for public deception.'

This has been a longstanding debate. Ripley (1927) argued that financial statements are appropriate instruments of control and may be used to monitor performance. Debate with May (1936) followed. May argued that conventional accounting reports were 'largely the reflection of individual judgments, and that their value is therefore to a large extent dependent on the competence and honesty of the persons exercising the necessary judgment' (p. 115). However, both that and subsequent debate leave the relationship between financial 'reporting' and financial 'statements' not explicitly stated. For example, it might be hypothesized on the one hand that the CF should be concerned with financial statements only, or on another that selected key performance indicators, not necessarily of a monetary nature, should be included in the CF.

For this to be tested, the present intermingling of data of distinct types requires unravelling. Analysis of the term 'accounting' is not new. Chambers (1956, p. 584) wrote: 'The ... use of the unqualified term *accounting* ... may not be misleading to those who are preoccupied with business accounting. We have long been accustomed to the use of *accounting* in the limited sense of business accounting. But why? Accounting is a generic term; several species, each having distinctive features, are recognized even by the novice. Each of these species of accounting has its peculiar form because it serves its own specific purpose.'

The species to which Chambers refers represent accountings with a different focus, serving different areas of interest of a wide range of users. It is the mixing of those distinct areas of interest that has led to problems in accounting at both the conceptual and the technical levels. It is here argued that a variety of issues relating to accounting species result from the intermingling of data which may be classified as *conventional* but which are not *financial*. In turn, the latter may be classified as a subset of *economic* data which in turn may be further classified as a subset of *social* data. In this article 'social' is a catch-all-other category. Other researchers may subdivide the data further. In the water industry, Bogeholz (1999) found 'ecological' to be a key category. Frost (1999) would undoubtedly see 'environmental' as a distinct category.

These issues may be illustrated by reference to Level 2, 'Objectives' (see Appendix). There, information for both economic decision making and accountability is sought. The implication is that the data for both purposes can be derived from a common source. But do conventional accounts provide both sets of data? Are those sets of data compatible in the sense that they can both reside comfortably within one accounting system? The standard setters apparently think so because SAC 2 includes both, although the former has been expanded to include information for making and evaluating decisions on the allocation of scarce resources. The point here is that the proposition that specie of both data can be components of one accounting system has not been tested and is not even questioned.

MULTIDISCIPLINARY INFLUENCES

The type of reporting required for corporate governance includes financial reporting, but various arguments have emerged regarding a tension found between conventional and financial type reporting. Further tensions follow from the introduction of economic and social issues within the conventional or financial accounting reports.

For example, Henderson and Peirson (2000, p. 934) raise various dilemmas:

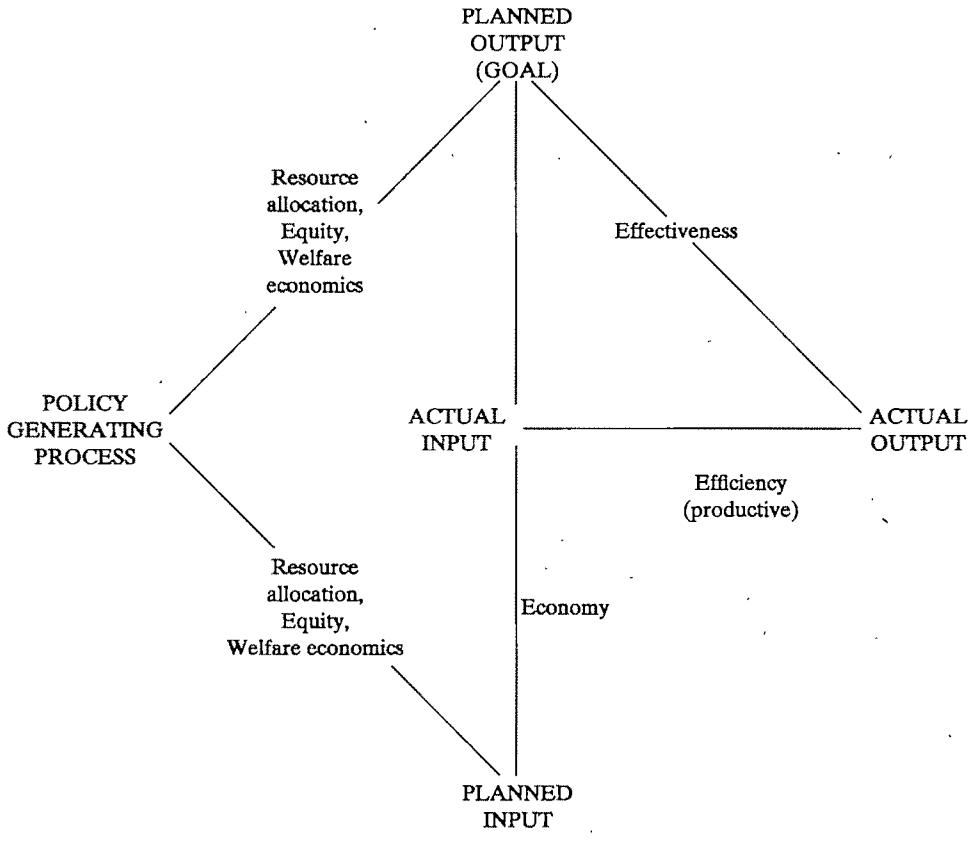
> Where there is a need for greater corporate social responsibility, there is a corresponding need for entities to account for and disclose their socially responsible activities and performances . . . the majority of disclosures have taken a narrative form, with the inclusion of some monetary and non-monetary data . . . Entities could also be required to specify the objectives of their socially responsible activities and the extent to which those activities and the costs incurred in implementing them have achieved the objectives. However, considerable research is needed to determine the feasibility of measuring in dollars the social costs and benefits of an entity's socially responsible activities.[1]

Within this context, the modern industrial or service entity, either public or private, conducts its business in an accountable, rapidly changing and highly competitive environment. Interest in the development of public sector accounting, especially with regard to the issues of accountability and performance measurement, began in Australia in the late 1970s. A National Government Accountants Committee was established and various conventions held and papers of proceedings published (1983, 1987). Under Federal and State governments a climate of reform steadily developed following Royal Commissions and various investigations into public service efficiency (Wilenski, 1982). That climate of reform also provided an impetus for the Australian CF project (Sutcliffe, 1985).

The search for reform, driven by the public sector in the context of demands for greater effectiveness and efficiency, was easily reconciled with the decision-making thrust of the CF (Hagan and Staunton, 1989, p. 19). A hierarchy of indicators (measurements, ideally) were sought that logically connect strategic plans to workplace activities. (See, e.g., the series of reports introduced by N.S.W. Treasury, 1996.)

[1] Similar sentiments have appeared in various editions of Henderson and Pierson's text. In earlier editions (e.g., 1988), however, reference is to 'financial statements' as the medium of communication.

FIGURE 1



The development of key performance indicators had to allow for performance being multi-faceted and not the province of narrow accounting numbers. Performance indicators may be grouped into those concerning equity/welfare economics/social issues, efficiency (both allocative and productive) and effectiveness. Reference is sometimes made to economy. Figure 1 shows how the above interrelate.

At the general policy-making level, issues involve the allocation of scarce resources among competing demands and questions of social equity among parties. Those issues are found in macro-economics and other social sciences. Here, some analysis and related data will certainly be qualitative and non-financial. One example would be the choice a government might have to make of new jet fighters for the armed forces, or new hospitals or new schools.

At the application or workplace level, allocative efficiency, from micro-economics, seeks the optimum combination of inputs (factors of production) for required ends. Productive efficiency, again from micro-economics, is also found in engineering

and other disciplines. While different disciplines have different definitions, productive efficiency basically deals with the optimum relationship between inputs and outputs. If inputs are given, maximum output is sought. If output is given, minimum inputs are sought. Effectiveness deals with the relationship between planned output and actual output. Economy deals with the relationship between planned input and actual input. For instance, management may be able to achieve a favourable variance for materials pricing or usage, but it may record an unfavourable variance for, say, labour hours.

Burton (1981, p. 55) observed: 'Related to the growth in supplemental information is the increasing emphasis on the future-oriented objectives of financial reporting. Over the past decade, there has been substantial movement toward articulating the importance of financial data in the predictive process and decreasing the emphasis on the stewardship role of statements.' Arguably, the link between financial reporting and financial statements has been lost or overtaken by developments in other disciplines.

THE TERM 'ACCOUNTING'

Obviously, 'accounting' has something to do with the concept of *accountability.* This concept has a lengthy history, as the biblical story of Adam and Eve suggests. However, the more relevant biblical story here is that of the talents. As may be recalled, a master has three servants. To one, he gives five talents, to another two and to the third, one. After a set period, the servants are called to account. The first and second, we are told, use their talents and return the five talents plus another five and two talents plus another two, respectively. The third, however, simply buries the talent, later digging it up and returning the single talent. The first two go on to bigger and better things. The other is, of course, criticized for not making better use of the resource.

From that anecdote, two ideas emerge: accountability for the original 'stake' and for the use made of that 'stake'. Thus an accounting would include the original position statement identifying the resources placed in the care of the servant, a subsequent statement of resources at the end of a given period of time, and from those two statements a change in position statement over that period is deduced—a performance statement. Depending on whether an accrual or a cash approach is taken, the performance statement will yield a measure of performance in terms of either of a profit/loss or of a cash surplus/deficit.

The modern situation, especially in the business environment, is obviously much more complex, but the fundamental ideas on accountability that emerge from the parable of the three servants remain central to any notion of accountability applied in today's world. We note, also, that the reasons for the added complexity of today's world are many and varied. However, the one which has been elaborated here is the progressive shift from the nineteenth-century idea of the stewardship of the directors being accountable to their shareholders only, to one in which other interest groups also seek an accounting of the managers'/directors' stewardship.

CONVENTIONAL ACCOUNTING

The accounting species that is now under attack has a long history. For example, Whitney (1940, p. 308) concluded:

> Traditional accounting procedures are sound, because accounts based on cost . . . comply with the equitable doctrines governing reports of fiduciaries . . .
>
> Balance-sheets prepared to traditional standards constitute part of the accounting corporation managements should render to shareholders for use and care of shareholders' funds. Although the courts have not classed corporate managements as fiduciaries, their responsibilities and duties to shareholders are actually fiduciary in character. The amounts shown opposite items of fixed assets on balance-sheets should be based on cost because they are accounts of expenditures.

Thus the traditional balance sheet may be useful in the stewardship role if it is limited, as Whitney suggested, to a record of expenditures. That is, it could simply incorporate 'cash in' and 'cash out' as well as legal debts of the entity.

To appreciate Whitney's 'traditional accounting', resort must be made to May's (1936) 'conventional accounting'. This phrase—as it literally suggests—leads to the inference that the reporting of one body to another follows developed and set conventions which are known to all players. This approach was promoted by May through his various committees, including those on cooperation with the New York Stock Exchange and the SEC during the turbulent times of the 1920s and 1930s. In accepting 'conventional accounting', investors and other stakeholders had to place a great deal of trust in the professional status of the accountant.

An input oriented process followed in which the calculation of *profit* for a reporting period was the key issue. This involved a series of steps. First, the amount of *revenue* for that period was recognized usually at the point of sale (in either a cash or credit transaction). Second, *expenses* for that period were recognized under a *matching* process in two ways. If an expense could be seen as *contributing* to the revenue as recognized, it was included in the calculation of profit. If an expense could be seen as applying to a particular *period*, it too was included. These rules were to lead to *deferred credits* and *deferred debits* being carried forward on the balance sheet at the end of that period as liabilities or assets and affected the calculation of profit in future periods. Exceptions included various mining, agricultural and construction ventures.

This input orientation underlying conventional accounting meant that May (1936, p. 117) could conclude:

> therefore the income account is usually far more important than the balance sheet. In point of fact, the changes in the balance sheets from year to year are usually more significant than the balance sheets themselves.
>
> The development of accounting conventions has, consciously or unconsciously, been in the main, based on an acceptance of this proposition. As a rule, the first objective has been to secure a proper charge or credit to the income account for the year, and in general the presumption has been that once this is achieved the residual amount of the expenditure or the receipt could properly find its place in the balance sheet at the close of the period.

This approach was adopted by the American Institute of Certified Public Accountants (AICPA, 1961):

> Since . . . 1941 . . . there has been marked progress toward greater logic and usefulness in what nevertheless still are referred to as balance-sheet presentations. It may be that at some future date the term balance sheet will cease to be used to designate a presentation of financial position and will instead be deemed to refer (as the term trial balance already refers) to a mere step, or point of arrival and departure, in preparing such a presentation. . . .
>
> [A] balance sheet is historically a summary of balances prepared from books of account kept by double-entry methods . . .
>
> In this view a balance sheet may be defined as: A tabular statement or summary of balances (debit and credit) carried forward after an actual or constructive closing of books of account kept according to principles of accounting.

Whitney (1940, p. 293) questioned the function of such a balance sheet: 'When an accountant is engaged in preparing a balance-sheet, according to the traditional procedures, is he attempting to prepare a statement of assets, liabilities, and net worth? If not, what is he doing? Can his objective be defined in words other than "certified balance-sheet"?' In discussion (pp. 294–5), he referred to 'a great deal of honest difference of opinion about the comparative merits of accounts based on cost and accounts based on appraisals'. He used Healy (1938) for the case for cost and MacNeal (1939) for non-cost based appraisals.

Whitney's (1940, p. 301) criticism of the May balance sheet was that 'misunderstanding will not be cleared up by the exertions of a committee of the New York Stock Exchange to attempt to "gradually" convince investors that balance-sheets are not what the form, date, and captions seem to indicate. Some more forceful method is required . . . Perhaps accountants must tell the public what balance-sheets are, instead of merely telling them what balance-sheets are not. Perhaps another title could be substituted for the meaningless, stilted phrase, "balance-sheet".' His solution (p. 308) was to introduce an additional statement expressing the 'independent expert opinion on the value of all of the corporate assets, liabilities, and net worth'. To him, a balance sheet under conventional accounting differed from a statement of financial position.

The APB (1970) expanded the AICPA position in an attempt to incorporate issues like Whitney's. The APB release reads (footnote references omitted):

> 133. The *financial position* of an enterprise at a particular time comprises its assets, liabilities, and owners' equity and the relationship among them, plus those contingencies, commitments, and other financial matters that pertain to the enterprise at that time and are required to be disclosed under generally accepted accounting principles. The financial position of an enterprise is presented in the *balance sheet* and in notes to the financial statements.

The term 'economic' was included in definitions of basic elements. For instance, '132 . . . *Liabilities*—economic obligations of an enterprise that are recognized and measured in conformity with generally accepted accounting principles. Liabilities also include certain deferred credits that are not obligations but that are recognized and measured in conformity with generally accepted accounting principles.'

It is against that background that the present situation may be considered. In Australia, SAC 2 (1990)—Block 3—uses terms and phrases that are in many ways similar to those used by the APB in 1970, but there are some important new notions, such as 'capacity to adapt' and 'solvency'. For example, SAC 2 defines financial position as the economic condition of a reporting entity, having regard to its control over resources, financial structure, capacity for adaptation and solvency. The primary financial measures of an entity's economic condition are reported in the statement of financial position, the elements of which are assets, liabilities and equity. The definitions of these elements in SAC 4—Blocks 5 and 6—again refer to economic ideas. Certainly ideas from financial and economic position are intermingled.

FINANCIAL REPORTING ISSUES

As mentioned earlier, for many years various writers have taken exception to the output of conventional accounting. Chambers (1966a, p. 252), writing of Grady (1965), concluded: 'It is demonstrable that the result of applying generally accepted accounting principles does not give financial position as it is understood by merchants or financiers in the market place, or even as it is understood by laymen'.

Chambers (1966a, p. 250) linked criticisms to the issue of stewardship:

> Now the relationships of managers 'to stockholders, creditors, government and others having bona fide interests'... can scarcely all be described as fiduciary relationships, without warping the meaning of fiduciary. None of these relationships is a fiduciary relationship in the customary sense. It is no doubt reasonable to say that directors and managers occupy positions of trust, in the sense that others trust them. But not in the sense that they are trustees...
>
> The object of these observations is not to clarify a simple verbal point. It is to strike at the root of what seems to be an error in conception. If the accountability of management is seen as a fiduciary accountability in the usual sense, it will lend support to the idea that management is accountable in respect of the sums of money 'entrusted' by equityholders, and a balance sheet showing aggregate outlays from such sums may be held to be justified; the initial costs of assets will be acceptable as balance sheet figures.

Indeed, as Whitney pointed out earlier, conventional accounting may meet this narrower idea of stewardship. In a broader interpretation, a different report was required. Chambers (1966b, p. 136) argued: 'If, and only if, all events and transactions, and only those events and transactions, which have a bearing on the financial position of an entity have been duly represented by entries in the accounting system, the balance sheet will represent the financial position of the entity as at the date for which it is drawn.' He would, however, limit the 'events and transactions' to be included quite dramatically, especially by excluding any *ex ante* economic as well as any social ones.

While the debate on the stewardship idea continued, at the same time there were developments in the role of accounting in decision making. Staubus (1977, p. 21) writes, 'In 1953, I submitted to the University of Chicago faculty a dissertation that explicitly adopted the decision-useful objective and used it as a basis for a conceptual structure (Staubus, 1954)'.

However, it would take some years to eventuate. Staubus (1977, pp. 24–5) discusses various statements, concluding:

> The turning point in the official and sponsored literature came in 1966. The AAA Committee to Prepare a Statement of Basic Accounting Theory bought the decision-usefulness approach lock, stock, and barrel. While it was not able to carry through as far as one might have hoped, the Committee's contribution to popularizing both the decision-usefulness objective and the standards to be used as criteria for evaluating potential accounting information (especially relevance, verifiability, and freedom from bias) was immense. One can only speculate about the extent to which the substantial dissatisfaction with accounting practices in the late 1960s and early 1970s would have been avoided if 'A Statement of Basic Accounting Theory' (ASOBAT) had been produced in 1957 (as it apparently could have been). It does seem clear, however, that in the mid-1970s it is playing a big role in the deliberations of accounting policy-making bodies, such as the FASB and SEC. Every sponsored study of fundamental ideas in accounting since 1966 has emphasized the decision-usefulness objective, and several have developed substantial structures of ideas on this basis.
>
> *APB Statement No. 4* (1970) was the first AICPA document to recognize the decision-usefulness objective. It also emphasized qualitative objectives . . . (pp. 35–38).

Staubus (1977, p. 23) also acknowledges Chambers' (1955, p. 25) early argument that the 'basic function of accounting' was 'the provision of information to be used in making rational decisions'. Chambers (1966b) later built into CoCoA a process of reasoned decision making by rational individuals (see especially Chapter 3, 'Ends and Means'). This was consistent with traditional economic theory, in which the end or goal of the individual was utility maximization. Thus the decision maker would systematically consider all available cases and act accordingly. Research (Kahneman and Smith, 2002) has found that this is not so in practice. In particular, some individuals were found to be risk averse, especially regarding losses. Some were also found to be more concerned with a change relative to a given level rather than an absolute amount. The role of accounting in decision making arguably required more analysis.

Debate persists at various levels. Kaufmann (2002, p. 75) argues:

> Australian governments have two components to their financial reporting, government finance statistics (GFS) and Australian generally accepted accounting principles (AGAAP) . . .
>
> GFS is a system of measurement and disclosure providing data to help statistical economic analysis. It is developed and promulgated by the IMF and is harmonized with the system of national accounts. Australia's national accounts are prepared by the Australian Bureau of Statistics (ABS), which adopted accrual GFS from 1998–99. Last December the IMF formally released its accrual GFS framework for application by member countries.

It is clear that the development of a suitable set of GFS is made more complex by incorporating (intermingling?) issues from distinct disciplines (accounting, economics, statistics and social issues). A fascinating example of one of the more ridiculous outcomes is provided by Barton (2003).

One answer is to narrow the context. Gole (1976, p. 78) argued: 'The emphasis appears to be on the non-essential, rather than the essential . . . It may be far better

to restrict the extent of disclosure . . . and sharpen the more important things.' For example, if financial position was restricted to past or current market exit prices, with other *ex ante* prices and calculations appearing in a statement of economic [or social] position, the current debate might be better structured and eventually resolved.

Consider some specific examples: If a non-monetary asset has no market exit price, it would be recognized in a statement of financial position at zero but appear at an *ex ante* figure on the economic statement. In this context, definitions and the criteria for the recognition of monetary assets or liabilities may require review. While it is intuitively appealing to regard all financial (and probably derivative) instruments as monetary, intriguing questions arise, such as whether it is possible to have a non-monetary liability.

ECONOMIC REPORTING ISSUES

Of concern here is the development of a statement of economic position and a related performance statement. To be consistent with notions from the discipline of economics, different definitions of key terms may be necessary. For example, terms such as *resources* (rather than *assets*) and *obligations* (rather than *liabilities*) might be used.

This proposal might not be as radical as it may appear. In the context of 'national accounting', many ideas from conventional/financial accounting have already been long adopted within a specialized specie of accounting. Yanovsky (1965, p. 9) points out:

> Viewing the various groups of transactors or sections of an economy as subsidiaries of the whole national economy, and the whole economy as the central accounting unit, enabled economic statisticians to adapt the business accounting system as an accounting framework for national economic activity. Such adaptation, they realized, could conveniently be applied to present a systematic measurement of national income, of expenditure on the national product, and of accumulation of national wealth and other economic flow aggregates. It could be used to demonstrate the interrelationships between these flows and aggregates. It could in fact also be adapted for the presentation of statements of wealth or national balance sheets.

It must be appreciated that some authors, including Yanovsky and Downing (1965), equate economic with social reporting. Other authors (e.g., McTaggart *et al.*, 1999, pp. 25, 25) differentiate between social and economic issues.

Yanovsky (1965, pp. 7–13) traces the origins of systems to produce reports about economic and financial activities of a nation. He highlights (pp. 8–9) the role of existing accounting systems for the private trade and business entities, referring to 'three most important principles of this private business accounting system, in their impact upon the national accounts system'. The first is the ability to regard anyone or any organization as a bookkeeping unit. The second is the existence of two types of transactions: one of flow (which he points out may be actual or imputed—a measurement issue), the other of changes in the status or composition. The third is of the inter-relationship between these two types.

It is clear that, provided the data are available and accounting concepts are used sensibly, national accounting reports consistent with those of a firm are possible. The unit of account, the concept of transactions and interrelationships between stocks and flows lead to statements on status (or position) and changes (or performance). But concepts such as 'imputation' may provide a key differentiation from conventional private-sector financial statements. For instance, imputation values of barter transactions or of specialized resources like pipeline networks are well understood in economic decision making but would be difficult to substantiate within a conventional accounting framework.

Consideration might also be given to the use of measurement techniques other than monetary ones. The Australian Bureau of Statistics (2002) provides data for measuring Australia's progress. Fifteen indicators are used to report the present position of and change over time in general wellbeing. Four of the indicators are of an economic nature. The first economic indicator is of real disposable income per person and is derived from GDP (gross domestic product). The second is real net wealth (assets less liabilities) per person. The third concerns unemployment. The fourth concerns the gap between rich and poor.

Non-financial data included here would, like financial data, be useful in decision making and accountability as proposed in the CF. Thus if issues of employment/unemployment were of concern, a structured report might include non-monetary indicators as well as imputed values of related effects on other issues/policies like education or immigration levels.

SOCIAL REPORTING ISSUES

Social reporting encompasses matters at the widest level. Yanovsky (1965, p. 1) shows that inter-relationships between economic and financial issues also overlap with social issues:

> The two world wars . . . and the social and political revolutions which followed them, have given great impetus to the study and analysis of macroeconomic problems. Confronted with acute economic and financial difficulties of international scale and character, the people and their respective governments have encouraged economists to examine the economic and financial activities of the different sectors in an economy from the point of view of the nation as a whole.

Debates are found which tend to be unresolvable as the parties argue at different levels. Consider the following scenario, based on an actual case. An opportunity shop, part of a larger charity group, has a favourable location in a well-established, wealthy suburb. It is staffed by volunteers and is seen by the not-so-young as a place to call in to have a cup of tea and a chat. The shop financially breaks even, due in large part to the lack of salary costs. However, head office looks at the economic situation, and decides that the shop should be closed as the resources would produce a higher return (both financially and economically) by moving to another location and selling or leasing the present location. The locals, both volunteers and users, argue that the net social benefits are so positive that the shop should be retained.

There is of course no simple answer to this dilemma. What is required is a framework within which issues can be rationally debated towards a considered conclusion. In terms of Figure 1, the two views are irreconcilable, and so it becomes a political question—which party has the greater power? These are decision making and accountability at their broadest.

Swift *et al.* (2001, p. 10), in a research study in the U.K., argued that the trend towards social reports suggests a change in attitudes from a predominantly managerial emphasis to one of collaboration with other stakeholders regarding social issues.

Various stakeholders are becoming increasingly aware of concepts like 'sustainable development' in environmental and social reporting contexts. The Global Reporting Initiative (GRI) was established in 1997 under the collaboration of the Coalition for Environmentally Responsible Economies and the United Nations Environment Program (www.globalreporting.org; other sites include www.hpmg.com and www.reputationmeasurement.au). The GRI is a long-term, multiple stakeholder, international undertaking with a mission to develop a framework for the reporting of information not presently found in conventional financial reports of corporations.

This would see the promotion and dissemination of voluntary guidelines for corporations to report on the sustainability of the economic, environmental and social dimensions of their activities, products and services (www.globalreporting.org). GRI reporting was to complement conventional accounting reporting by providing non-financial information for users in their assessment of performance of corporations.

Draft guidelines were issued in 1999. After pilot testing, comments from interested parties and revision, the guidelines were released in 2000. A further update was released in 2002. The guidelines recommend reporting in five sections: vision and strategy; profile; governance structure and management systems; GRI content index; and performance indicators.

In a similar way, as described in the previous section, the Australian Bureau of Statistics (2002) reports the present position of and changes over time in general wellbeing. Included are five indicators of a social nature and six of environmental issues. The first of the social indicators concerns education and training, the second life expectancy, the third issues regarding housing, the fourth crime and the fifth 'social attachments'. The first of the environmental indicators concerns the numbers of extinct or endangered bird or mammal species, the second land clearance, the third land degradation, the fourth inland water, the fifth greenhouse gas emissions and the sixth air quality.

Gittins (2002) commented:

> That document . . . gets about as close as any statistician gets to the meaning of life. It's a kind of national stocktaking, allowing us to answer the question of whether life in our country has been getting better or worse, particularly over the past decade.
>
> It's the bureau's considered response to the common (but well-founded) criticism that the incessantly quoted gross domestic product is too narrow and misleading as a measure of the change in our wellbeing . . .
>
> Now, the one thing the bureau doesn't attempt is to add up these 15 indicators to offer a judgment on whether, overall, we're making progress or going backwards.

One hopes no accountants would try to make the addition either, but again data included here would, like the financial and economic, be useful in decision making and accountability as proposed in the CF. For instance, the Australian Conservation Foundation produces a 'Perception Report' on the environmental performance of Australia's top 100 companies. (www.acfound). This is nicknamed the 'Good Reputation Index'. A similar report has been launched called RepuTex Ratings System (Hewson, 2003, p. 70).

Economic or social position and performance statements are no longer radical suggestions and need to be reconciled with the issues met in the CF project.

SUMMARY AND IMPLICATIONS

The CF has still to deal with dilemmas caused by a failure to define financial reporting succinctly. It mixes ideas from different disciplines and must fully deal with the idea of accountability. This is summarized in Figure 2.

The left-hand column covers descriptions of issues which over time seem to be the major role to be played by accounting at both conceptual and technical levels. However, an unravelling of particular data of a different type will be required.

Ensuring that accounting will satisfy the needs of all stakeholders in a firm will require definitions of effectiveness and efficiency that can be employed and applied to all inputs and outputs—*conventional*, *financial*, *economic* and *social*. For example, as noted earlier, 'effectiveness' being defined as the meeting of set goals, the goals would be set and disclosed across the whole range of conventional, financial, economic and social reports. What is important is that all definitions are consistently applied if issues of reporting are to be resolved.

In the context of policy development, Argy (1995, p. 18) writes of the consequences of failure to unravel different types of data:

> However, what . . . others failed to foresee fully was that deregulation would increase enormously the role and influence of *financial* markets in *social* and *economic* policy; that this would impose a major constraint on the ability of governments to implement (through tax and transfer policies) the community's preferred set of *social* priorities, and that it

FIGURE 2

Issue	Data			
	Conventional	Financial	Economic	Social
Accountability and stewardship				
Narrow	Perhaps	Yes	Perhaps	Perhaps
Broader	By chance	Yes	Perhaps	Perhaps
Decision making and multidisciplinary issues				
Effectiveness	By chance	Yes	Yes	Yes
Efficiency	By chance	Yes	Yes	Perhaps

> would create a strong policy bias in favour of low inflation and 'small government', with corresponding aversion to low unemployment and government spending on welfare, health, education, labour market programs for disadvantaged workers and *social* infrastructure. (emphasis added)

This type of reporting certainly includes financial reporting, but various arguments persist regarding a tension between conventional and financial type reporting. Further tensions follow from introduction of economic and social issues within both conventional accounting and financial reports.

The CF clearly envisages a broadening of the concept of 'accountability' into the public sector and into non-conventional areas where issues such as those explored above come into play. This may have some unforeseen consequences on the CF project and makes Burton's (1981, p. 55) hope all the more pointed: 'when finally completed, [the CF] will help . . . sort out the issues and provide a matrix of sorts in which its decision-making process can be set. To date, the board's determination to seek consensus and to avoid threatening its various constituencies has led it to defer some of the hard decisions.' Is one of those hard decisions the definition of financial reporting and the related role of financial statements?

SPECIFIC RECOMMENDATIONS

The CF cannot be effective until key components are defined. In particular, the specific role of financial reporting must be defined in Level 1. This has to be consistent with work done to date on other levels within the CF. If we take the objectives of the CF as given, the steps proposed here are:

1. Unravel the present mixture of distinct areas of the firm's activities into conventional, financial, economic and social;
2. Refine the definitions and recognition of elements, measurement and presentation throughout the different levels of the CF to ensure consistency;
3. Narrow 'financial' to the reporting measures of financial resources currently available for adaptive behaviour; and
4. Assist in the development of CFs for economic and social reporting to ensure consistency with the financial CF.

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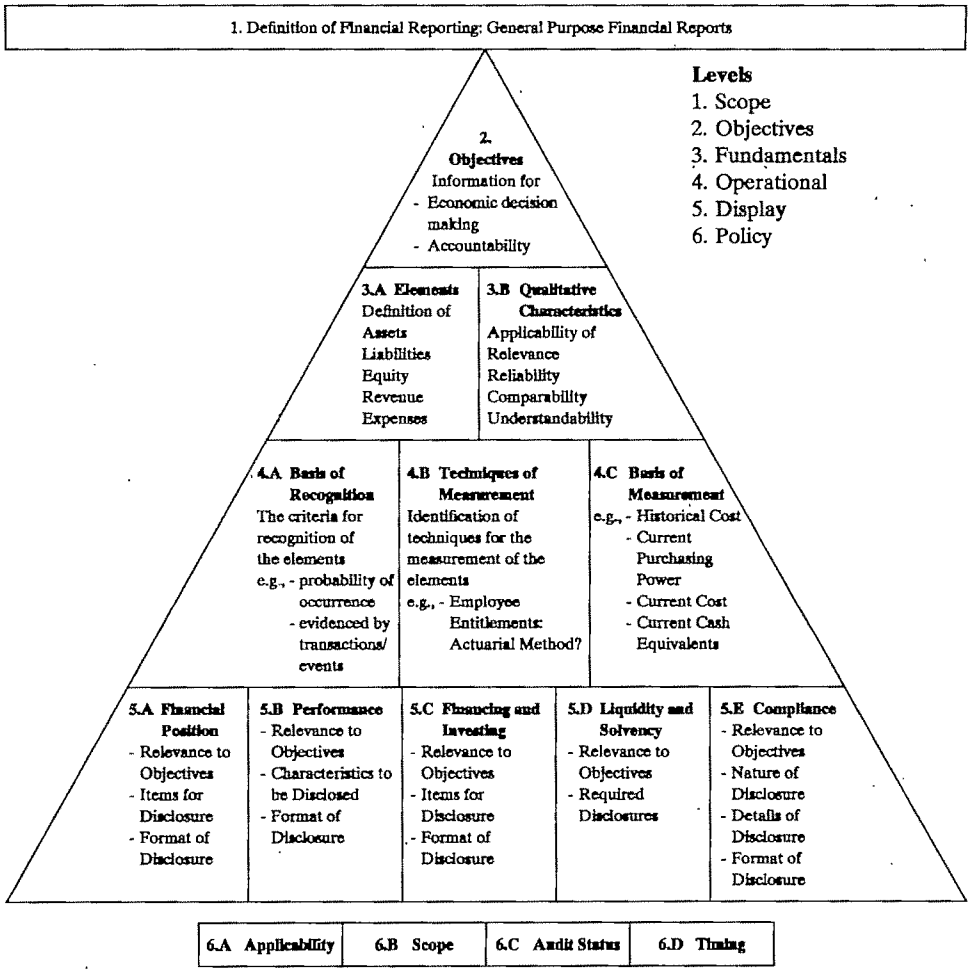
APPENDIX

THE AUSTRALIAN ACCOUNTING RESEARCH FOUNDATION



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